



STIC Search Report

EIC 1700

STIC Database Tracking Number: 196437

TO: Ben Sackey
Location: REM 5B31
Art Unit : 1626
July 27, 2006

Case Serial Number: 10/791425

From: Kathleen Fuller
Location: EIC 1700
REMSEN 4B28
Phone: 571/272-2505
Kathleen.Fuller@uspto.gov

Search Notes

OFFICIAL USE ONLY

ACCESS DB # 196437

PLEASE PRINT CLEARLY

Scientific and Technical Information Center

SEARCH REQUEST FORM

Requester's Full Name: Brian Sackay Examiner #: 73489 Date: 7/25/06

Art Unit: 162e Phone Number: 2-0744 Serial Number: 10/791,425

Location (Bldg/Room#): Den 5B3f(Mailbox #): 5 Results Format Preferred (circle): PAPER DISK

To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Synthesis and antimicrobial activity of novel dicyanamide reverse amide!

Inventors (please provide full names): Goyal et al.

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr.

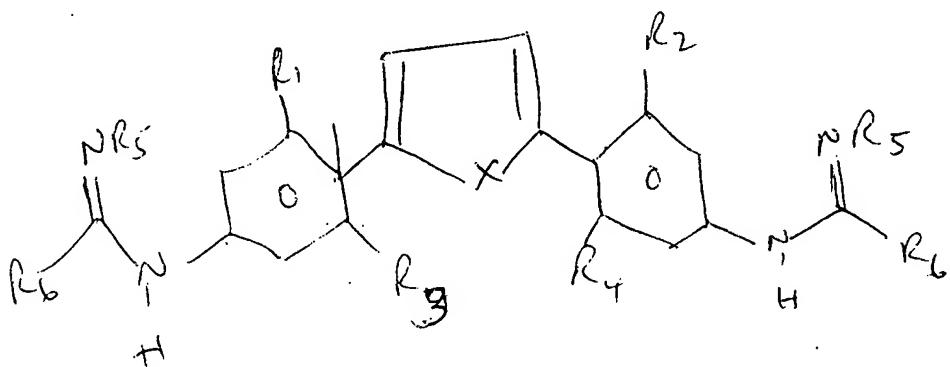
Earliest Priority Date: 11/06/00

JUL 2006

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter. **Patent & Trademark Office** include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



R¹ - R⁶ are as defined in claim 1

=> FILE REG
FILE 'REGISTRY' ENTERED AT 16:21:05 ON 27 JUL 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 26 JUL 2006 HIGHEST RN 896142-63-5
DICTIONARY FILE UPDATES: 26 JUL 2006 HIGHEST RN 896142-63-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> FILE HCPLUS
FILE 'HCPLUS' ENTERED AT 16:21:09 ON 27 JUL 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

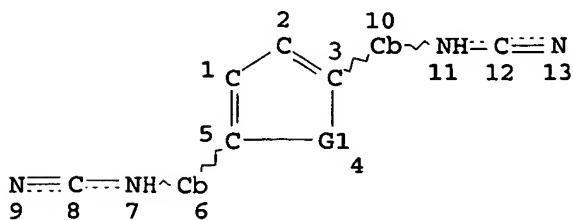
Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 27 Jul 2006 VOL 145 ISS 5
FILE LAST UPDATED: 26 Jul 2006 (20060726/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE
L3 STR



123 structures from query

VAR G1=O/S/N

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L5	123 SEA FILE=REGISTRY SSS FUL L3
L7	<u>21</u> SEA FILE=HCAPLUS ABB=ON L5
L8	12 SEA FILE=HCAPLUS ABB=ON L7(L) PREP/RL
L9	19 SEA FILE=HCAPLUS ABB=ON L7 AND PHARMAC?/SC, SX
L10	20 SEA FILE=HCAPLUS ABB=ON L8 OR L9
L11	1 SEA FILE=HCAPLUS ABB=ON L7 NOT L10
L12	21 SEA FILE=HCAPLUS ABB=ON L10 OR L11

=> D L12 BIB ABS IND HITSTR 1-21

Q1 CA references

L12 ANSWER 1 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1342002 HCAPLUS

DN 144:253958

TI Synthesis of some diguanidino 1-methyl-2,5-diaryl-1H-pyrroles as antifungal agents. [Erratum to document cited in CA143:266774]

AU Jana, Gour Hari; Jain, Sanjay; Arora, Sudershan K.; Sinha, Neelima

CS Medicinal Chemistry Division, Lupin Research Park, New Chemical Entity Research, Pune, Maharashtra, 411 042, India

SO Bioorganic & Medicinal Chemistry Letters (2006), 16(3), 751
CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier B.V.

DT Journal

LA English

AB The locant of guanidino and fluoro for structure 9h in Table 1 was duplicated. The correct version of Table 1 is given.

CC 27-10 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 10

ST erratum pyrrolediyl bisphenylene guanidine prepn antifungal agent; diguanidino methyl aryl pyrrole prepn fungicide fluconazole erratum; Stille coupling diguanidino methyl aryl pyrrole fungal infection erratum

IT Fungicides

Mycosis

(preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. and study of their activity as antifungal agents (Erratum))

IT 863710-26-3P 863710-27-4P 863710-28-5P

863710-29-6P 863710-30-9P 863710-31-0P

863710-32-1P 863710-33-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. and study
 of their activity as antifungal agents (Erratum))

IT 96-54-8, 1-Methylpyrrole 1461-22-9, Tributyltin chloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. using
 stannane derivative as synthetic intermediate (Erratum))

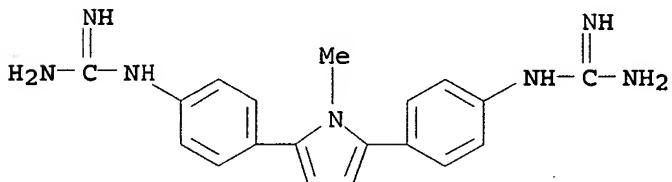
IT 863710-25-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. using
 stannane derivative as synthetic intermediate (Erratum))

IT 344-38-7 364-73-8 586-78-7, 1-Bromo-4-nitrobenzene 7149-70-4,
 1-Bromo-2-methyl-4-nitrobenzene 29682-39-1, 1-Bromo-2-chloro-4-
 nitrobenzene 41513-04-6 77337-82-7, 1-Bromo-2-methoxy-4-nitrobenzene
 167415-27-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. via Stille
 coupling using stannane derivative and bromonitroarene as reactants
 (Erratum))

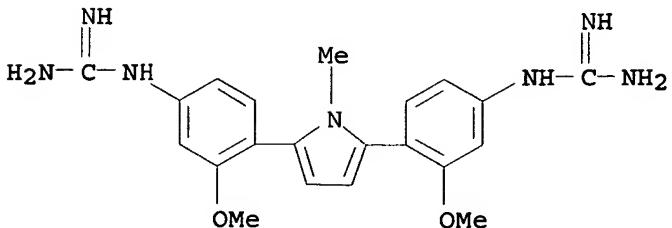
IT 863710-26-3P 863710-27-4P 863710-28-5P
 863710-29-6P 863710-30-9P 863710-31-0P
 863710-32-1P 863710-33-2P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. and study
 of their activity as antifungal agents (Erratum))

RN 863710-26-3 HCPLUS

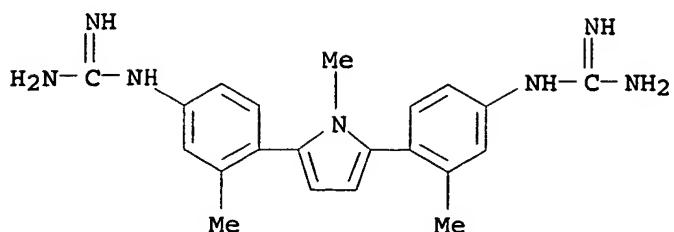
CN Guanidine, N,N'-'-[(1-methyl-1H-pyrrole-2,5-diyl)bis(3-methoxy-4,1-phenylene)bis-(9CI) (CA INDEX NAME)



RN 863710-27-4 HCPLUS
 CN Guanidine, N,N'-'-[(1-methyl-1H-pyrrole-2,5-diyl)bis(3-methoxy-4,1-phenylene)bis-(9CI) (CA INDEX NAME)

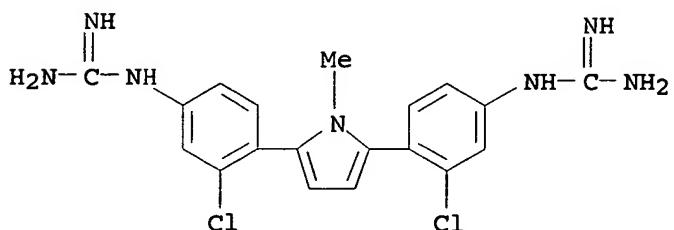


RN 863710-28-5 HCPLUS
 CN Guanidine, N,N'-'-[(1-methyl-1H-pyrrole-2,5-diyl)bis(3-methoxy-4,1-phenylene)bis-(9CI) (CA INDEX NAME)



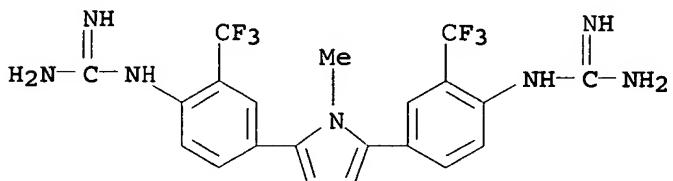
RN 863710-29-6 HCAPLUS

CN Guanidine, N,N''-[(1-methyl-1H-pyrrole-2,5-diyl)bis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



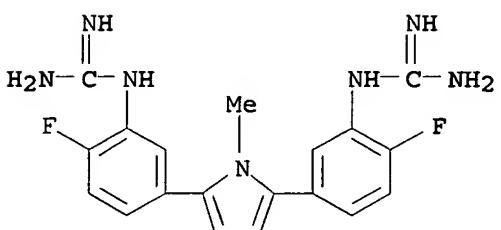
RN 863710-30-9 HCAPLUS

CN Guanidine, N,N'-'-[(1-methyl-1H-pyrrole-2,5-diyl)bis[2-(trifluoromethyl)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



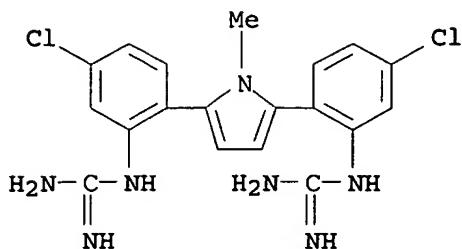
RN 863710-31-0 HCAPLUS

CN Guanidine, N,N'-(1-methyl-1H-pyrrole-2,5-diyl)bis(6-fluoro-3,1-phenylene)bis- (9CI) (CA INDEX NAME)



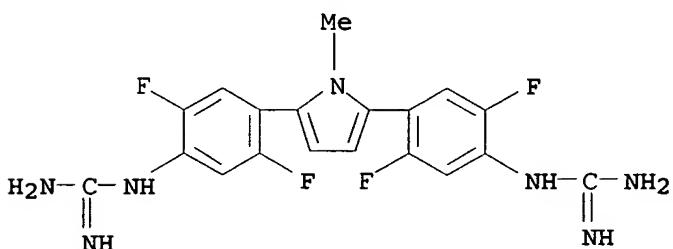
RN 863710-32-1 HCAPLUS

CN Guanidine, N,N'-'-[(1-methyl-1H-pyrrole-2,5-diyl)bis(5-chloro-2,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 863710-33-2 HCAPLUS

CN Guanidine, N,N'-(1-methyl-1H-pyrrole-2,5-diyl)bis(2,5-difluoro-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



L12 ANSWER 2 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1026859 HCAPLUS

DN 143:332486

TI Dicationic compounds for activity against trichomonas vaginalis

IN Boykin, David W.; Stephens, Chad E.; Secor, W. Evan; Crowell, Andrea L.; Kumar, Arvind

PA Georgia State University Research Foundation, Inc., USA; The Government of the United States of America As

SO PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005086754	A2	20050922	WO 2005-US7316	20050307
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

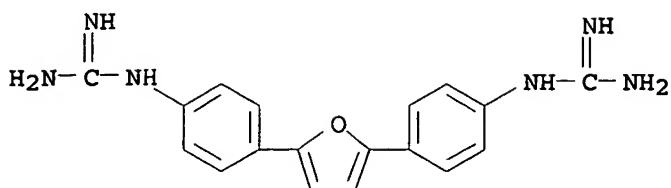
PRAI US 2004-551089P P 20040308

OS MARPAT 143:332486

AB Dicationic compds. for the treatment of T. vaginalis infections are described. The presently described compds. exhibit in vitro activity against metronidazole-sensitive and -resistant T. vaginalis isolates.

Furthermore, the presently described compds. demonstrate IC50 concns. that were not elevated in the metronidazole resistant isolate, suggesting that their activity is not affected by parasite mechanisms that confer resistance to 5-nitroimidizoles.

IC ICM A61K
CC 63-5 (Pharmaceuticals)
ST dicationic compd trichomonas parasiticide infection
IT Amines, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(diamines; dicationic compds. for activity against trichomonas vaginalis)
IT Human
Parasite
Parasiticides
Protozoa
Trichomonas vaginalis
(dicationic compds. for activity against trichomonas vaginalis)
IT Dialdehydes
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dicationic compds. for activity against trichomonas vaginalis)
IT Drug delivery systems
(liposomes; dicationic compds. for activity against trichomonas vaginalis)
IT Drug delivery systems
(oral; dicationic compds. for activity against trichomonas vaginalis)
IT Drug delivery systems
(prodrugs; dicationic compds. for activity against trichomonas vaginalis)
IT Infection
(trichomoniasis; dicationic compds. for activity against trichomonas vaginalis)
IT 777041-42-6
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dicationic compds. for activity against trichomonas vaginalis)
IT 64-17-5, Ethanol, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(dicationic compds. for activity against trichomonas vaginalis)
IT 865094-64-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(dicationic compds. for activity against trichomonas vaginalis)
IT 212829-47-5P 790241-42-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(dicationic compds. for activity against trichomonas vaginalis)
IT 66-98-8, 4,4'-Diformyl-1,1'-biphenyl 106-51-4, 1,4-Benzoquinone,
biological studies 68827-43-0, 4-Amidino-1,2-phenylenediamine
73819-26-8, 2,5-Bis(4-amidinophenyl)furan 148344-30-3 173420-56-9
186953-56-0 192525-52-3 212829-51-1, 2,5-Benzofurandicarboxaldehyde
242807-42-7 442842-45-7 500714-77-2 790241-43-9
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dicationic compds. for activity against trichomonas vaginalis)
IT 7647-01-0, Hydrochloric acid, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(salt; dicationic compds. for activity against trichomonas vaginalis)
IT 442842-45-7
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dicationic compds. for activity against trichomonas vaginalis)
RN 442842-45-7 HCPLUS
CN Guanidine, N,N'''-(2,5-furandiylidi-4,1-phenylene)bis- (9CI) (CA INDEX
NAME)



L12 ANSWER 3 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STM
 AN 2005:589383 HCAPLUS
 DN 143:266774
 TI Synthesis of some diguanidino 1-methyl-2,5-diaryl-1H-pyrroles as antifungal agents
 AU Jana, Gour Hari; Jain, Sanjay; Arora, Sudershan K.; Sinha, Neelima
 CS Medicinal Chemistry Division, Lupin Research Park, New Chemical Entity Research, Maharashtra, 411 042, India
 SO Bioorganic & Medicinal Chemistry Letters (2005), 15(15), 3592-3595
 CODEN: BMCLE8; ISSN: 0960-894X
 PB Elsevier B.V.
 DT Journal
 LA English
 OS CASREACT 143:266774
 AB A series of novel 2,5-bis(guanidino-aryl)-1-methyl-1H-pyrroles 9a-h has been synthesized starting from 1-methyl-1H-pyrrole. The antifungal activities of compds. were evaluated by in vitro agar diffusion and broth dilution assay against Candida spp. and Aspergillus spp. One compound from this series was found to be equipotent or more potent than fluconazole, and one compound was comparable to fluconazole against most of the tested strains.
 CC 27-10 (Heterocyclic Compounds (One Hetero Atom))
 Section cross-reference(s): 1, 10
 ST pyrrolediyl bisphenylene guanidine prepn antifungal agent; diguanidino methyl aryl pyrrole prepn fungicide fluconazole; Stille coupling diguanidino methyl aryl pyrrole prepn fungal infection
 IT Fungicides
 Mycosis
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. and study of their activity as antifungal agents)
 IT 863710-26-3P 863710-27-4P 863710-28-5P
 863710-29-6P 863710-30-9P 863710-31-0P
 863710-32-1P 863710-33-2P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. and study of their activity as antifungal agents)
 IT 107819-90-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. and study of their activity as antifungal agents)
 IT 96-54-8, 1-Methylpyrrole 1461-22-9, Tributyltin chloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. using stannane derivative as synthetic intermediate)
 IT 863710-25-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. using

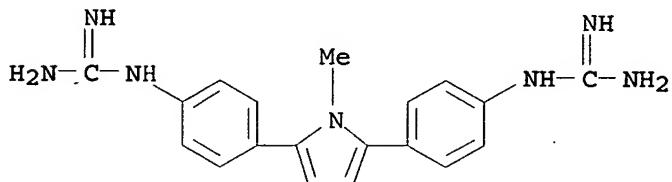
stannane derivative as synthetic intermediate)

IT 344-38-7 364-73-8 586-78-7, 1-Bromo-4-nitrobenzene 7149-70-4,
 1-Bromo-2-methyl-4-nitrobenzene 29682-39-1, 1-Bromo-2-chloro-4-
 nitrobenzene 41513-04-6 77337-82-7, 1-Bromo-2-methoxy-4-nitrobenzene
 167415-27-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. via Stille
 coupling using stannane derivative and bromonitroarene as reactants)

IT 863710-26-3P 863710-27-4P 863710-28-5P
 863710-29-6P 863710-30-9P 863710-31-0P
 863710-32-1P 863710-33-2P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation)
 (preparation of (pyrrole)diylbis(phenylene)bis[guanidine] derivs. and study
 of their activity as antifungal agents)

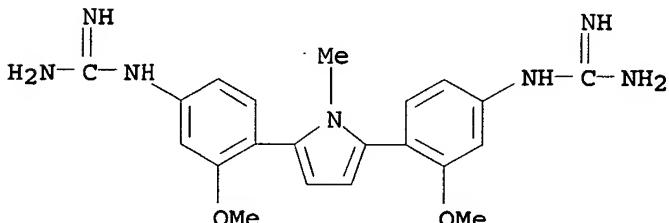
RN 863710-26-3 HCAPLUS

CN Guanidine, N,N''''-[(1-methyl-1H-pyrrole-2,5-diyl)bis(3-methoxy-4,1-phenylene)bis-(9CI) (CA INDEX NAME)



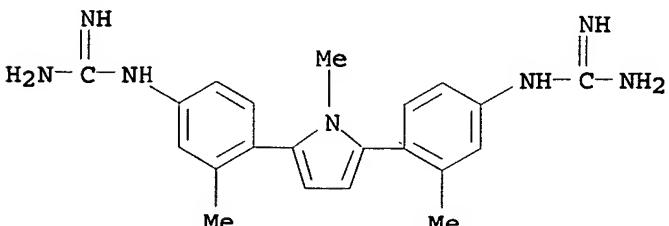
RN 863710-27-4 HCAPLUS

CN Guanidine, N,N''''-[(1-methyl-1H-pyrrole-2,5-diyl)bis(3-methoxy-4,1-phenylene)bis-(9CI) (CA INDEX NAME)



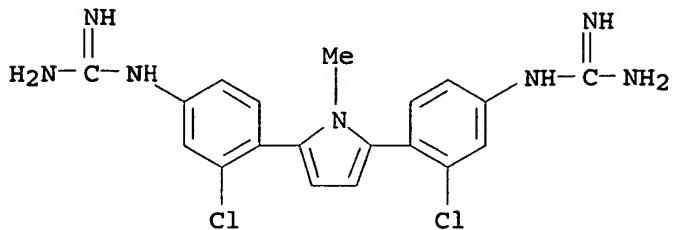
RN 863710-28-5 HCAPLUS

CN Guanidine, N,N''''-[(1-methyl-1H-pyrrole-2,5-diyl)bis(3-methyl-4,1-phenylene)bis-(9CI) (CA INDEX NAME)



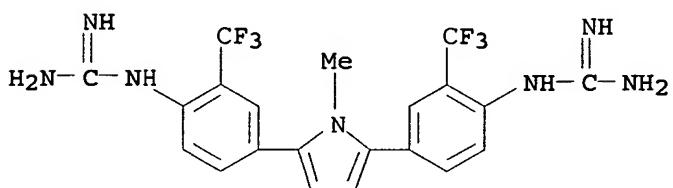
RN 863710-29-6 HCAPLUS

CN Guanidine, N,N'-'-[(1-methyl-1H-pyrrole-2,5-diyl)bis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



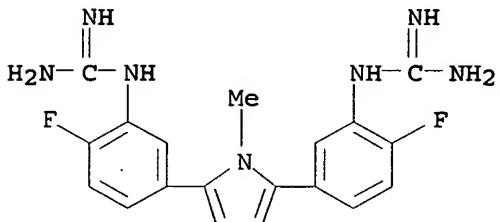
RN 863710-30-9 HCPLUS

CN Guanidine, N,N'-'-[(1-methyl-1H-pyrrole-2,5-diyl)bis[2-(trifluoromethyl)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



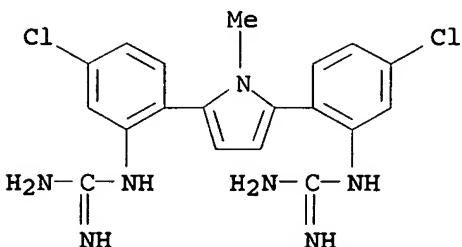
RN 863710-31-0 HCPLUS

CN Guanidine, N,N'-'-[(1-methyl-1H-pyrrole-2,5-diyl)bis(6-fluoro-3,1-phenylene)]bis- (9CI) (CA INDEX NAME)



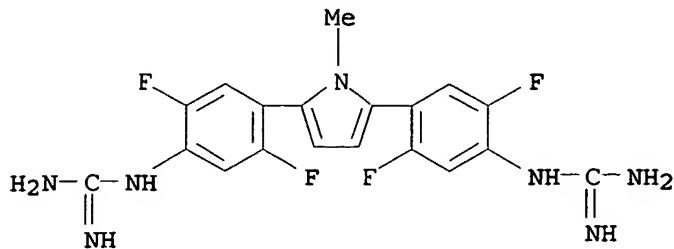
RN 863710-32-1 HCPLUS

CN Guanidine, N,N'-'-[(1-methyl-1H-pyrrole-2,5-diyl)bis(5-chloro-2,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 863710-33-2 HCPLUS

CN Guanidine, N,N'-(1-methyl-1H-pyrrole-2,5-diyl)bis(2,5-difluoro-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:324127 HCAPLUS
 DN 142:373841
 TI Preparation of novel amidines for treating microbial infections like human African trypanosomiasis and falciparum malaria
 IN Tidwell, Richard R.; Boykin, David; Brun, Reto; Stephens, Chad E.; Kumar, Arvind
 PA University of North Carolina At Chapel Hill, USA; Georgia State University Research Foundation, Inc.
 SO PCT Int. Appl., 82 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005033065	A1	20050414	WO 2003-US27963	20030905
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2537791	AA	20050414	CA 2003-2537791	20030905
	AU 2003265967	A1	20050421	AU 2003-265967	20030905
	EP 1663959	A1	20060607	EP 2003-818831	20030905
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	WO 2003-US27963	W	20030905		
OS	MARPAT 142:373841				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Novel amidine and diamidine compds. (1st of 7 claimed Markush formulas

shown as I; variables defined below; e.g. 4,4'-bis(6-amidinobenzimidazol-2-yl)-1,2-diphenylethane tetrahydrochloride (II) may be useful in the treatment of microbial infections, including mycobacterial, fungal and protozoal infections. Pharmaceutical formulations comprising these compds. can be used in methods of treating microbial infections. Neither pharmacol. activity nor therapeutic use is claimed, but the effectiveness of 11 examples of the claimed compds. against Trypanosoma rhodesiense and Plasmodium falciparum is tabulated. Although the methods of preparation are not claimed, 9 example preps. of claimed compds. and intermediates are included. For example, II was prepared (64 %) from 4,4'-diformal-1,2-diphenylethane, 4-amidino-1,2-phenylenediamine hydrochloride hemihydrate and 1,4-benzoquinone in EtOH. For I: X' and X'' = alkyl, alkylene, O, oxy, oxyalkyl, alkyloxy, alkyloxyalkyl, and -C(O)NH(CH₂)q-; m, n, p, and q = 0-10; L = hydroxyalkyl, 1,2-oxazole, 1,3-oxazole, Ph, naphthyl, pyrimidine, alkyl-substituted pyrimidine and -CH(CO₂R₁₁)- (R₁₁ = H or alkyl); R₁-R₁₀ = H, alkyl, hydroxy, oxyalkyl, alkyloxy, halo, aryl, and Y, wherein at least one of R₁-R₁₀ = Y, and Y = -C(:NR₁₂)NR₁₃R₁₄, -CH:NNHC(:NR₁₂)NR₁₃R₁₄, and -NHC(NR₁₂)NR₁₃R₁₄ (R₁₂ = H, hydroxy, cycloalkyl, aryl, aralkyl, alkoxy, hydroxycycloalkyl, alkoxyycloalkyl, hydroxyalkyl, aminoalkyl, acyloxy, and alkylaminoalkyl; R₁₃ and R₁₄ = H, hydroxy, alkyl, alkoxyalkyl, cycloalkyl, aryl, aralkyl, hydroxyalkyl, aminoalkyl, and alkylaminoalkyl; or R₁₂ and R₁₃ together = C₂-C₁₀ alkyl, hydroxyalkyl, or alkylene; or R₁₂ and R₁₃ together = (R₁₅)_j-substituted o-phenylene (j = 1-3, and R₁₅ is H or Y)).

IC ICM C07C257-00

CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1, 25, 27

ST amidine prepn antimalarial trypanosomicide; human African trypanosomiasis amidine drug prepn; falciparum malaria amidine drug prepn

IT Malaria

(falciparum; preparation of novel amidines for treating microbial infections like human African trypanosomiasis and falciparum malaria)

IT Antimalarials

Human

Plasmodium falciparum

Trypanosoma rhodesiense

Trypanosomicides

(preparation of novel amidines for treating microbial infections like human African trypanosomiasis and falciparum malaria)

IT Amidines

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of novel amidines for treating microbial infections like human African trypanosomiasis and falciparum malaria)

IT Infection

(trypanosomiasis; preparation of novel amidines for treating microbial infections like human African trypanosomiasis and falciparum malaria)

IT 423165-21-3P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(drug candidate; preparation of novel amidines for treating microbial infections like human African trypanosomiasis and falciparum malaria)

IT 26130-55-2P, 3-(Benzylloxy)benzenecarboximidamide 56806-77-0P,

1,4-Bis[4-[amino(imino)methyl]phenoxy]-2-butanol dihydrochloride

57928-60-6P, 4-(Benzylloxy)benzenecarboximidamide hydrochloride

77838-86-9P, 1,4-Bis(5-amidinobenzimidazol-2-yl)benzene 118499-88-0P,

1,2-Bis[4-[amino(imino)methyl]phenoxy]benzene 148344-27-8P,

1,4-Bis(5-amidinobenzimidazol-2-yl)-2,5-dimethylbenzene 204589-04-8P,

4,6-Bis(4-amidinophenyl)-2-methylpyrimidine 423165-59-7P,
 2,5-Bis[2-hydroxy-4-[(pyridin-2-yl)iminomethyl]amino]phenyl]furan dihydrochloride 423165-69-9P, 2,5-Bis(3-ethoxy-4-guanidinophenyl)furan dihydrochloride 500713-52-0P, 9-[4-[Amino(imino)methyl]phenoxy]octyl phenyl ether hydrochloride 500713-59-7P, 4-[(3-Tolyl)methoxy]benzenecarboximidamide hydrochloride 500714-02-3P, 1,5-Bis[[3-[(imino)(isopropylamino)methyl]phenyl]methoxy]naphthalene 500714-04-5P, 1,5-Bis[[4-[(imino)(isopropylamino)methyl]phenyl]methoxy]naphthalene 500714-06-7P, 1,4-Bis[[4-[(imino)(isopropylamino)methyl]phenoxy]methyl]naphthalene 500714-08-9P, 1,5-Bis[3,6-bis(4,5-dihydro-1H-imidazol-2-yl)-9H-carbazol-9-yl]pentane 500714-29-4P, 5-[3-[(Amino(imino)methyl)phenyl]-3-[4-[amino(imino)methyl]phenyl]isoxazole 500714-31-8P, 3-[3-[Amino(imino)methyl]phenyl]-5-[4-[amino(imino)methyl]phenyl]isoxazole 500714-34-1P, 1,4-Bis[(5-amidinoindol-2-yl)methyl]benzene 500714-40-9P, 1,2-Bis[4-[5-[(butylamino)(imino)methyl]benzimidazol-2-yl]phenyl]ethane 500714-42-1P, 2,7-Bis[[4-[(imino)(isopropylamino)methyl]phenyl]methoxy]naphthalene 500714-44-3P, 2,7-Bis[[3-[(imino)(isopropylamino)methyl]phenyl]methoxy]naphthalene 500714-46-5P, 1,4-Bis[6-(4,5-dihydro-1H-imidazol-2-yl)benzo[b]furan-2-yl]butane 500714-48-7P, 1,3-Bis[6-[(imino)(isopropylamino)methyl]benzo[b]furan-2-yl]propane 500714-53-4P, 1-[[5-[4-[(sec-Butyl)amino](imino)methyl]phenoxy]pentyl]oxy]-3-[5-[(imino)(isopropylamino)methyl]benzimidazol-2-yl]benzene 500714-67-0P, 5-[4-[(Amino(imino)methyl)phenyl]-2-[2-[4-[amino(imino)methyl]phenyl]ethyl]oxazole 500714-69-2P, 2,6-Bis(5-amidinobenzimidazol-2-yl)naphthalene 500714-75-0P, 1,2-Bis[4-(5-amidinobenzimidazol-2-yl)phenyl]ethane 500714-77-2P, 4,4'-Bis(5-amidinobenzimidazol-2-yl)-1,1'-biphenyl 500714-79-4P, Bis[4-(5-amidinobenzimidazol-2-yl)phenyl]methane 500714-81-8P, 1,2-Bis[4-(5-amidinobenzimidazol-2-yl)phenyl]cyclopropane 500714-83-0P, 2-(5-Amidinobenzimidazol-2-yl)-5-[2-[4-(5-amidinobenzimidazol-2-yl)phenyl]ethyl]thiophene 500714-92-1P, 2-[4-[2-(4-Methoxyphenyl)ethyl]phenyl]-1H-benzimidazole-5-carboximidamide 500714-93-2P, 2-[4-[2-(4-Ethylphenyl)ethyl]phenyl]-1H-benzimidazole-5-carboximidamide 500714-94-3P, 2-[4-[2-(4-Fluorophenyl)ethyl]phenyl]-1H-benzimidazole-5-carboximidamide 500714-95-4P, 2-[6-(4-Amidinophenyl)pyridin-2-yl]-1H-benzimidazole-5-carboximidamide 500714-97-6P, 2-(5-Amidinobenzoxazol-2-yl)-5-(4-amidinophenyl)furan 500714-98-7P, 2-(5-Amidinobenzimidazol-2-yl)-6-(4-amidinophenyl)phenol 500715-03-7P, 1,5-Bis[4-[(imino)(phenyl)methyl]amino]phenoxy]pentane 500715-13-9P, 1,7-Bis[[4-[(amino(imino)methyl)benzoyl]amino]heptane 634905-88-7P, 1,5-Bis[[3-[(amino(imino)methyl)phenyl]methoxy]naphthalene 733735-45-0P, 1,3-Bis[[4-(4,5-dihydro-1H-imidazol-2-yl)phenoxy]methyl]benzene 763922-64-1P, 1,4-Bis[[4-(4,5-dihydro-1H-imidazol-2-yl)phenoxy]methyl]benzene 790241-42-8P, 4,4'-Bis(5-Amidinobenzimidazol-2-yl)biphenyl tetrahydrochloride 849623-20-7P, 2,6-Bis(4-amidinobenzimidazol-2-yl)naphthalene tetrahydrochloride 849623-21-8P, 4,4'-Bis(6-amidinobenzimidazol-2-yl)-1,2-diphenylethane tetrahydrochloride 849623-26-3P, 1-[4-(5-Amidinobenzimidazol-2-yl)phenyl]-2-[2-(5-amidinobenzimidazol-2-yl)thien-5-yl]ethane trihydrochloride 849623-33-2P, 2-(5-Amidinobenzimidazol-2-yl)-6-(4-amidinophenyl)pyridine triacetate 849623-37-6P, 2,5-Bis(4-guanidino-3-methylthiophenyl)furan dihydrochloride 849623-40-1P, 2-(5-Amidinobenzimidazol-2-yl)-5-(4-amidino-2-methylphenyl)furan trihydrochloride 849623-41-2P, Methyl 4-[4-[(amino(imino)methyl)phenoxy]-2-[2-[4-[(amino(imino)methyl)phenoxy]ethyl]butanoate 849623-42-3P, 2,5-Bis[4-amidino-3-(methylthio)phenyl]furan
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation);
 USES (Uses)

(drug candidate; preparation of novel amidines for treating microbial

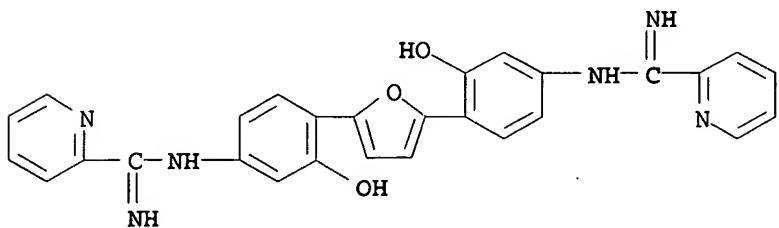
infections like human African trypanosomiasis and falciparum malaria)

IT 98-01-1, 2-Furfuraldehyde, reactions 610-38-8, 3,4-Dinitrobromobenzene
 1220-08-2, 4,4'-Diformyl-1,2-diphenylethane 1591-30-6,
 4,4'-Dicyanobiphenyl 4701-17-1, 5-Bromothiophene-2-aldehyde 6345-68-2,
 3-Benzylxy-4-bromonitrobenzene 16532-79-9, 4-Bromophenylacetonitrile
 17626-40-3, 3,4-Diaminobenzonitrile 31656-49-2, 2,6-Dicyanonaphthalene
 34160-40-2, 6-Bromopyridine-2-carboxaldehyde 66717-58-6,
 4-Amidino-1,2-phenylenediamine hydrochloride 78881-21-7,
 4-Amino-3-methylbenzonitrile 126747-14-6, 4-Cyanophenylboronic acid
 193361-76-1, 2,5-Bis(tributylstanny)furan 347191-10-0,
 S-(2-Naphthylmethyl) pyridine-2-carboximidothioate hydrobromide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of novel amidines for treating microbial infections like human
 African trypanosomiasis and falciparum malaria)

IT 66-98-8P, 4,4'-Diformyl-1,1'-biphenyl 5060-65-1P, 2,6-
 Diformylnaphthalene 57279-70-6P, 2-Nitro-5-bromophenetole 96463-58-0P,
 2-(4-Bromophenyl)-3-(5-bromothien-2-yl)acrylonitrile 423165-37-1P,
 2,5-Bis(3-ethoxy-4-nitrophenyl)furan 423165-42-8P, 2,5-Bis(2-benzylxy-4-
 nitrophenyl)furan 423165-50-8P, 2,5-Bis(4-amino-3-ethyloxyphenyl)furan
 423165-51-9P, 2,5-Bis(4-amino-2-hydroxyphenyl)furan 834884-79-6P,
 6-(4-Cyanophenyl)pyridine-2-carboxaldehyde 849623-22-9P,
 2-(4-Bromophenyl)-3-(5-bromothien-2-yl)propionitrile 849623-23-0P,
 2-(4-Bromophenyl)-3-(5-bromothien-2-yl)propionic acid 849623-24-1P,
 1-(4-Cyanophenyl)-2-(5-cyanothien-2-yl)ethane 849623-25-2P,
 1-(4-Formylphenyl)-2-(5-formylthien-2-yl)ethane 849623-30-9P,
 2-(5-Cyanobenzimidazol-2-yl)-6-(4-cyanophenyl)pyridine 849623-31-0P,
 2-(5-Hydroxyamidinobenzimidazol-2-yl)-6-(4-hydroxyamidinophenyl)pyridine
 849623-32-1P, 2-(5-Acetoxyamidinobenzimidazol-2-yl)-6-(4-
 acetoxyamidinophenyl)pyridine 849623-34-3P, 5-Bromo-2-nitrothioanisole
 849623-35-4P, 2,5-Bis(4-nitro-3-methylthiophenyl)furan 849623-36-5P,
 2,5-Bis(4-amino-3-methylthiophenyl)furan 849623-38-7P,
 2-(4-Cyano-2-methylphenyl)-5-formylfuran 849623-39-8P,
 2-(5-Cyanobenzimidazol-2-yl)-5-(4-cyano-2-methylphenyl)furan
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of novel amidines for treating microbial infections like human
 African trypanosomiasis and falciparum malaria)

IT 423165-21-3P
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP
 (Preparation); RACT (Reactant or reagent); USES (Uses)
 (drug candidate; preparation of novel amidines for treating microbial
 infections like human African trypanosomiasis and falciparum malaria)

RN 423165-21-3 HCPLUS
 CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-hydroxy-4,1-
 phenylene)]bis- (9CI) (CA INDEX NAME)



IT 423165-59-7P, 2,5-Bis[2-hydroxy-4-[(pyridin-2-yl)iminomethyl]amino]phenylfuran dihydrochloride 423165-69-9P,

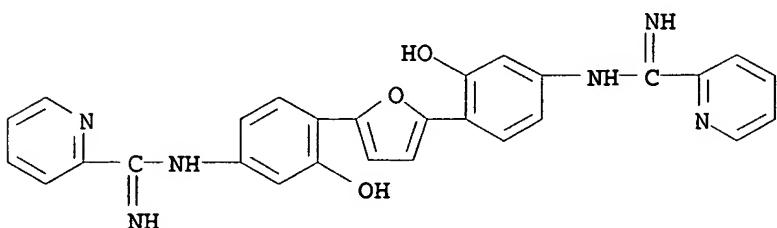
2,5-Bis(3-ethoxy-4-guanidinophenyl)furan dihydrochloride
 849623-37-6P, 2,5-Bis(4-guanidino-3-methylthiophenyl)furan
 dihydrochloride

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation);
 USES (Uses)

(drug candidate; preparation of novel amidines for treating microbial infections like human African trypanosomiasis and falciparum malaria)

RN 423165-59-7 HCAPLUS

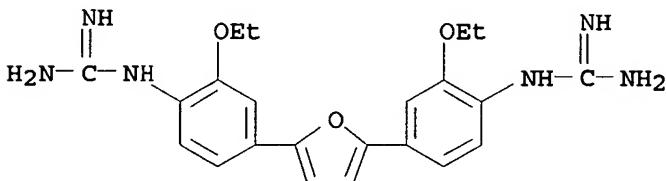
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-hydroxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-69-9 HCAPLUS

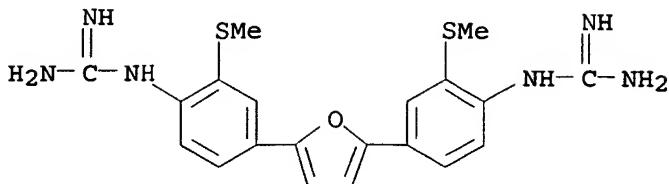
CN Guanidine, N,N''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 849623-37-6 HCAPLUS

CN Guanidine, N,N''-[2,5-furandiylbis[2-(methylthio)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 21 HCPLUS COPYRIGHT 2006 ACS on STN
AN 2005:120654 HCPLUS
DN 142:191226
TI Combination of pentamidine or analog and antiproliferative agent drugs for the treatment of neoplasms
IN Nichols, James M.; Lee, Margaret S.; Keith, Curtis T.; Zhang, Yanzhen; Gaw, Debra A.
PA Combinatorx, Incorporated, USA
SO PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005011572	A2	20050210	WO 2004-US23524	20040722
WO 2005011572	A3	20050310		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005054708	A1	20050310	US 2004-895561	20040721
AU 2004261148	A1	20050210	AU 2004-261148	20040722
CA 2529521	AA	20050210	CA 2004-2529521	20040722
EP 1651211	A2	20060503	EP 2004-778848	20040722
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
PRAI US 2003-490759P	P	20030728		
WO 2004-US23524	W	20040722		
OS MARPAT 142:191226				
AB The invention features a method for treating a patient having a cancer or other neoplasm by administering to the patient pentamidine or a pentamidine analog and an antiproliferative agent simultaneously or within 14 days of each other in amounts sufficient to treat the patient. The combination of pentamidine and vinblastine provided improved antiproliferative activity against human non-small cell lung carcinoma				

A549 cells.

IC ICM A61K

CC 1-6 (Pharmacology)

ST pentamidine antiproliferative agent drug combination treatment neoplasm; vinblastine pentamidine nonsmall lung carcinoma cell inhibition

IT Bone, neoplasm
(Ewing's sarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Sarcoma
(Ewing's; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Sarcoma
(Kaposi's; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Lymphoproliferative disorders
(Waldenstrom's macroglobulinemia; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Kidney, neoplasm
(Wilms'; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Nerve, neoplasm
(acoustic neuroma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Acute myeloid leukemia
(acute erythroblastic leukemia; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(adenocarcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Neuroglia, neoplasm
(astrocytoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Skin, neoplasm
(basal cell carcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(basal cell; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Biliary tract, neoplasm
(bile duct, carcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(bladder; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(bronchial; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Bladder, neoplasm

Bronchi, neoplasm

Lung, neoplasm
(carcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Sarcoma
(cartilage chondrosarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Uterus, neoplasm
(cervix; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(choledochal; combination of pentamidine or analog and

antiproliferative agent drugs for treatment of neoplasms)

IT Cartilage, neoplasm
(chondrosarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Neoplasm
(chordoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
Chorion, neoplasm
(choriocarcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Intestine, neoplasm
(colon, carcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
Intestine, neoplasm
(colon; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Acute lymphocytic leukemia
Acute monocytic leukemia
Acute myeloid leukemia
Acute myelomonocytic leukemia
Acute promyelocytic leukemia
Antitumor agents
Carcinoma
Chronic lymphocytic leukemia
Chronic myeloid leukemia
Combination chemotherapy
Cytotoxic agents
Hodgkin's disease
Human
Leukemia
Leukemia
Lung, neoplasm
Mammary gland, neoplasm
Melanoma
Neoplasm
Neuroglia, neoplasm
Ovary, neoplasm
Pancreas, neoplasm
Polycythemia vera
Prostate gland, neoplasm
Sarcoma
Sebaceous gland
Sweat gland
Testis, neoplasm
Uterus, neoplasm
(combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Brain, neoplasm
(craniopharyngioma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Ovary, neoplasm
(cystadenocarcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(embryonal; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Brain, neoplasm
(ependymoma; combination of pentamidine or analog and antiproliferative

agent drugs for treatment of neoplasms)

IT Sarcoma
(fibrosarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Neoplasm
(heavy chain disease; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Blood vessel, neoplasm
(hemangioblastoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Blood vessel, neoplasm
Sarcoma
(hemangiosarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(hepatocellular; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Liver, neoplasm
(hepatoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Drug delivery systems
(inhalants; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Drug delivery systems
(injections, i.m.; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Drug delivery systems
(injections, i.v.; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Myoma
Sarcoma
(leiomyosarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Adipose tissue, neoplasm
Sarcoma
(liposarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Sarcoma
(lymphangiosarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Brain, neoplasm
(medulloblastoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Nervous system, neoplasm
(meningioma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Mesothelium, neoplasm
(mesothelioma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Astrocyte
(neoplasm, astrocytoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Notochord
(neoplasm, chordoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Meninges
(neoplasm, meningioma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Oligodendrocyte
(neoplasm, oligodendroglioma; combination of pentamidine or analog and

antiproliferative agent drugs for treatment of neoplasms)

IT Synovial membrane, disease
(neoplasm, sarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Schwann cell
(neoplasm, schwannoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Nerve, neoplasm
(neuroblastoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Lymphoma
(non-Hodgkin's; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Lung, neoplasm
(non-small-cell carcinoma, treatment of; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Neuroglia, neoplasm
(oligodendrogloma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Drug delivery systems
(oral; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Bone, neoplasm
Sarcoma
(osteosarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(ovarian cystadenocarcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(papillary adenocarcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(papillary; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Brain, neoplasm
(pinealoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(pulmonary non-small-cell, treatment of; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(pulmonary small-cell; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(pulmonary; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Drug delivery systems
(rectal; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Kidney, neoplasm
(renal cell carcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
(renal cell; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Eye, neoplasm
(retinoblastoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Sarcoma

(rhabdomyosarcoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Nervous system, neoplasm
 (schwannoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Testis, neoplasm
 (seminoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Lung, neoplasm
 (small-cell carcinoma; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Carcinoma
 (squamous cell; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT Sarcoma
 (synovial membrane; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT 300865-11-6, PTP-1B
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (PTP-1B, inhibitor, for cancer treatment; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT 838835-09-9 838835-10-2 838835-11-3 838835-12-4 838835-13-5
 838835-14-6
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antiproliferative activity against non-small cell lung carcinoma A549 cells; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT 865-21-4, Vinblastine 33419-42-0, Etoposide 41575-94-4, Carboplatin
 95058-81-4, Gemcitabine
 RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (as antiproliferative agent; combination of pentamidine or analog and antiproliferative agent drugs for treatment of neoplasms)

IT 100-33-4, Pentamidine 100-33-4D, Pentamidine, analogs, derivs., salts
 101-62-2, Phenamidine 104-32-5, Propamidine 122-06-5, Stilbamidine
 495-99-8, Hydroxystilbamidine 496-00-4, Dibromopropamidine 536-71-0,
 Diminazene 618-39-3, Benzamidine 1402-38-6, Actinomycin 1438-30-8,
 Netropsin 3459-96-9, Amicarbalide 11056-06-7, Bleomycin 20830-81-3,
 Daunorubicin 23214-92-8, Doxorubicin 25316-40-9, Adriamycin
 33763-36-9, 3,7-Dicyanodibenzofuran 39389-47-4, Distamycin 41738-62-9,
 3,7-Dicyanodibenzothiophene 41738-64-1, 3,7-Diaminodibenzothiophene
 66639-24-5 67019-91-4, 3,7-Dibromodibenzofuran 73819-26-8,
 2,5-Bis(4-amidinophenyl)furan 73819-28-0 74733-75-8,
 Bis(5-amidino-2-benzimidazolyl)methane 75846-15-0 75846-16-1
 80498-71-1 80498-74-4 83834-10-0, 3,7-Dibromodibenzothiophene
 91371-12-9, 4,4'-Dibromo-2,2'-dinitrobiphenyl 94345-47-8, Heptamidine
 100562-53-6 101689-95-6 124076-61-5, Butamidine 124076-65-9
 148344-21-2 157168-41-7, 1,4-Bis[5-(2-imidazolyl)-2-benzimidazolyl]-2-ethylbutane 157168-42-8, 1,4-Bis[5-(2-imidazolyl)-2-benzimidazolyl]-2,3-diethyl-2-butene 157168-43-9, 1,4-Bis[5-(2-imidazolyl)-2-benzimidazolyl]-1-butene 157168-44-0, 1,4-Bis[5-(2-imidazolyl)-2-benzimidazolyl]-2-butene 157168-45-1, 1,4-Bis[5-(2-imidazolyl)-2-benzimidazolyl]-1-methylbutane 157168-46-2, 1,4-Bis[5-(2-imidazolyl)-2-benzimidazolyl]-1-methyl-1-butene 157168-48-4 157168-49-5, 1,4-Bis[5-(2-imidazolyl)-2-benzimidazolyl]butane 157168-50-8, Bis[5-(2-imidazolyl)-2-benzimidazolyl]methane 157168-51-9, 1,3-Bis[5-(2-imidazolyl)-2-benzimidazolyl]propane 160522-89-4 161374-52-3, Nonamidine
 165596-46-3 166601-05-4 166601-10-1 166601-11-2 168637-58-9
 173420-56-9 173420-58-1 173420-61-6 173420-63-8 179118-03-7

179118-04-8 179118-05-9 179118-08-2 179118-10-6 179118-22-0
 186395-09-5 186395-18-6 186395-20-0 186395-22-2 186395-24-4
 186395-25-5 186395-26-6 186395-27-7 186395-28-8 186395-29-9
 186395-30-2 186953-56-0, 2,5-Bis(4-amidinophenyl)furan-bis-O-methylamidoxime 190958-06-6 190958-12-4 190958-16-8 200878-34-8
 212829-50-0 213972-16-8 216308-12-2 216308-13-3 216308-14-4
 216308-16-6 216308-18-8 216502-98-6 216502-99-7 216503-00-3
 216503-01-4 216503-02-5 216503-05-8 216503-06-9 216503-07-0
 216503-08-1 216503-09-2 219483-82-6 232940-82-8,
 2,8-Dicyanodibenzofuran 232940-83-9 232940-84-0 242807-42-7
 247032-11-7 247032-13-9 247032-15-1 247032-16-2 247032-17-3
 247032-18-4 338945-24-7, 2,8-Dibenzofurandicarboximidamide 415718-14-8
 415718-17-1 415718-20-6 415718-26-2 415718-29-5 415718-32-0,
 2,8-Dibenzothiophenedicarboximidamide 415718-35-3 415718-41-1,
 3,7-Dibenzothiophenedicarboximidamide 415718-44-4 415718-47-7
 415718-50-2 648415-32-1 648415-33-2 648415-34-3
 648415-36-5 648415-37-6 648415-38-7
648415-39-8 648415-40-1 648415-41-2
 648415-42-3 648415-43-4 648415-44-5 648415-45-6 648415-46-7
 648415-47-8 648415-48-9 648415-49-0 648415-50-3 648415-51-4
 648415-52-5 648415-53-6 648415-54-7 648415-55-8 648415-58-1
 648415-59-2 648417-90-7 648417-91-8 648417-92-9 648417-93-0
 648417-94-1 648417-95-2 648417-96-3 648417-97-4 648418-01-3

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (combination of pentamidine or analog and antiproliferative agent drugs
 for treatment of neoplasms)

IT 95725-91-0

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitor, for cancer treatment; combination of pentamidine or analog
 and antiproliferative agent drugs for treatment of neoplasms)

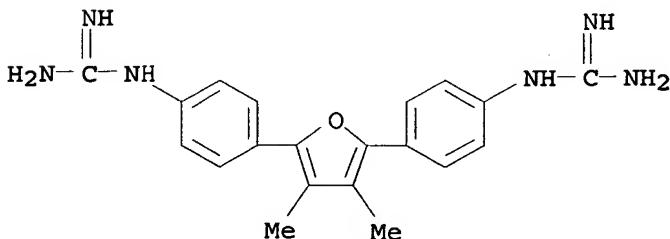
IT 648415-34-3 648415-37-6 648415-38-7

648415-39-8 648415-40-1 648415-41-2

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (combination of pentamidine or analog and antiproliferative agent drugs
 for treatment of neoplasms)

RN 648415-34-3 HCAPLUS

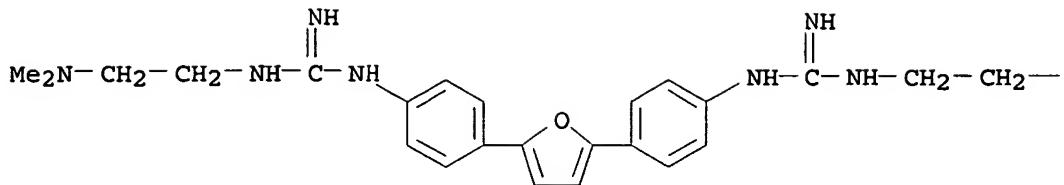
CN Guanidine, N,N'--[(3,4-dimethyl-2,5-furandiyl)di-4,1-phenylene]bis- (9CI)
 (CA INDEX NAME)



RN 648415-37-6 HCAPLUS

CN Guanidine, N,N'--[(2,5-furandiyl)di-4,1-phenylene]bis[N'-(2-(dimethylamino)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

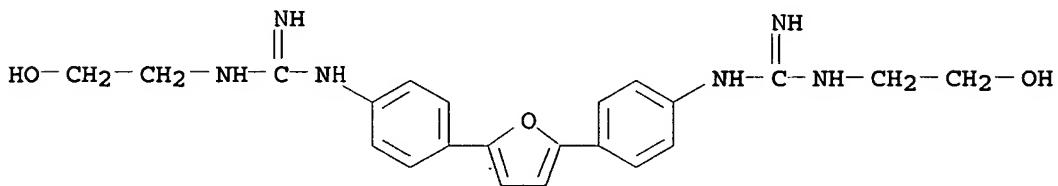


PAGE 1-B

— NMe₂

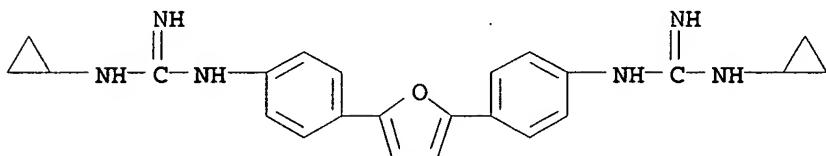
RN 648415-38-7 HCPLUS

CN Guanidine, N,N'-(2,5-furandiyl-di-4,1-phenylene)bis[N'-(2-hydroxyethyl)-(9CI) (CA INDEX NAME)]



RN 648415-39-8 HCPLUS

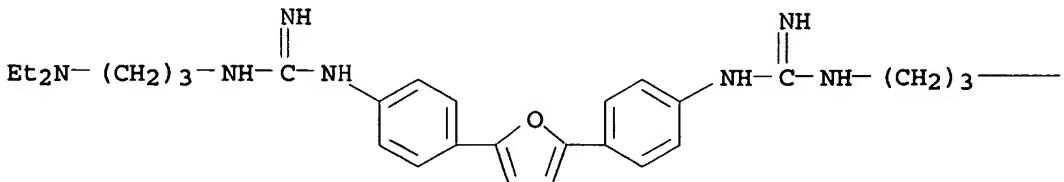
CN Guanidine, N,N'-(2,5-furandiyl-di-4,1-phenylene)bis[N'-cyclopropyl-(9CI) (CA INDEX NAME)]



RN 648415-40-1 HCPLUS

CN Guanidine, N,N'-(2,5-furandiyl-di-4,1-phenylene)bis[N'-(3-(diethylamino)propyl)-(9CI) (CA INDEX NAME)]

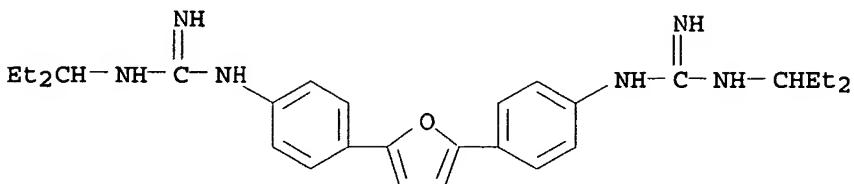
PAGE 1-A



PAGE 1-B

— NET₂

RN 648415-41-2 HCAPLUS
 CN Guanidine, N,N''-(2,5-furandiylidene)bis[N'-(1-ethylpropyl)-
 (9CI) (CA INDEX NAME)



L12 ANSWER 6 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STM
 AN 2005:115848 HCAPLUS

DN 142:403921

TI Inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells

AU Stefanovic, Lela; Stephens, Chad E.; Boykin, David; Stefanovic, Branko
CS Department of Biomedical Science, Florida State University College of Medicine, Tallahassee, FL, 32306, USA

SO Life Sciences (2005), 76(17), 2011-2026

CODEN: LIFSAK; ISSN: 0024-3205

PB Elsevier B.V.

DT Journal

LA English

AB Excessive production of extracellular matrix is responsible for clin. manifestations of fibroproliferative disorders and drugs which can inhibit excessive synthesis of type I collagen are needed for the therapy. Several dicationic diphenylfurans were synthesized and were found to bind RNA. Two of these type compds. were able to reduce synthesis of type I collagen by human fibroblasts and human activated hepatic stellate cells (HSCs). Activated HSCs are responsible for collagen production in liver fibrosis. When added at 40 μM compound DB588 reduced intracellular level and secretion of procollagen α1(I) by 50%, while compound DB654 reduced these parameters by more than 80% at 20 μM. DB 654 also significantly reduced secretion of fibronectin. Toxic effects were observed at 80 μM for DB588 and 40 μM for DB654. DB654 reduced expression of a reporter gene with collagen signal peptide, while expression of the same gene without signal peptide was unaffected. Also, expression of intracellular proteins tubulin and calnexin was unchanged. DB 654 accumulated inside the cell in the cytoplasm and did not change the steady-state level of collagen mRNAs. Treatment of cells with proteosome inhibitor MG132 did not change the inhibitory effect of DB654, suggesting that DB654 acts as suppressor of translation of proteins containing a signal peptide. Most secreted proteins of fibroblasts and activated HSCs are components of extracellular matrix. Therefore inhibition of their production, as shown here for procollagen α1(I) and fibronectin, may be a useful property of some of diphenylfurans, making these compds. a basis for

development of antifibrotic drugs.

CC 1-10 (Pharmacology)

ST dicationic diphenylfuran collagen fibroblast hepatoprotectant

IT Fibroblast
 (disease; inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT Disease, animal
 (fibroblast; inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT Liver, disease
 (fibrosis; inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT Fibrosis
 (hepatic; inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT Cytoprotective agents
 (hepatoprotective; inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT Human
 (inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT Collagens, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (procollagens, $\alpha_1(I)$; inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT Fibroblast
 (proliferation; inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT Liver
 (stellate cell; inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT Collagens, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (type I; inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT 850410-84-3P, DB 588
 RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT 433735-88-7P, DB654
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT 850360-91-7P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (inhibitory effect of dicationic diphenylfurans on production of type I

collagen by human fibroblasts and activated hepatic stellate cells)

IT 1643-19-2, Tetrabutyl ammonium bromide 7154-73-6, 1-(2-Aminoethyl)pyrrolidine 26628-22-8, Sodium azide 101579-34-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

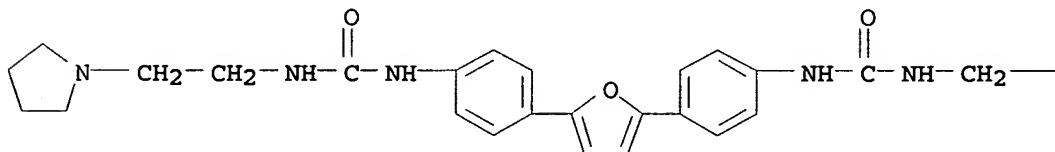
IT 850360-92-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

IT 850410-84-3P, DB 588
 RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (inhibitory effect of dicationic diphenylfurans on production of type I collagen by human fibroblasts and activated hepatic stellate cells)

RN 850410-84-3 HCAPLUS

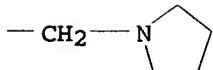
CN Urea, N,N'-(2,5-furandiylidene)-4,1-phenylene)bis[N'-[2-(1-pyrrolidinyl)ethyl]-, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



●2 HCl

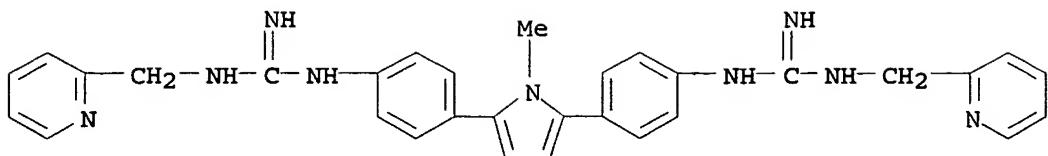
PAGE 1-B



RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

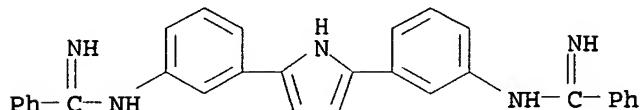
L12 ANSWER 7 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:6494 HCAPLUS
 DN 143:193871
 TI Synthesis of dicationic 2,5-diarylpyrroles
 AU Arafa, Reem K.; Brun, Reto; Werbovetz, Karl A.; Tanious, Farial A.; Wilson, W. David; Boykin, David W.
 CS Department of Chemistry, Georgia State University, Atlanta, GA, 30303, USA
 SO Heterocyclic Communications (2004), 10(6), 423-428
 CODEN: HCOMEX; ISSN: 0793-0283
 PB Freund Publishing House Ltd.
 DT Journal
 LA English

OS CASREACT 143:193871
AB A new series of dicationic reversed amidine derivs. and a substituted guanidine analog of 2,5-diarylpyrrole obtained starting from the corresponding 2,5-bis(aminoaryl)pyrroles are reported. The results of DNA binding studies and antimicrobial screening assays for these compds. are presented.
CC 27-10 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 1, 6
ST dicationic diaryl pyrrole prepn DNA binding antimicrobial; reversed dicationic amidine deriv prepn reaction; aminoaryl pyrrole prepn reaction
IT Antimicrobial agents
Leishmania donovani
Plasmodium falciparum
Trypanosoma rhodesiense
(synthesis, DNA binding, and antimicrobial activity of dicationic diarylpyrroles)
IT DNA
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)
(synthesis, DNA binding, and antimicrobial activity of dicationic diarylpyrroles)
IT 861806-23-7P 861806-28-2P 861806-29-3P
861806-30-6P 861806-31-7P 861806-32-8P
861806-33-9P 861806-34-0P 861806-35-1P
861806-36-2P 861806-38-4P 861806-39-5P
861806-40-8P 861806-41-9P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation)
(synthesis, DNA binding, and antimicrobial activity of dicationic diarylpyrroles)
IT 99-81-0, 4-Nitrophenacyl bromide 100-19-6, p-Nitroacetophenone
121-89-1, m-Nitroacetophenone 3731-51-9, 2-(Aminomethyl)pyridine
16182-04-0 347191-10-0 347191-23-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis, DNA binding, and antimicrobial activity of dicationic diarylpyrroles)
IT 108791-66-8P 137596-49-7P 137596-50-0P 162878-72-0P
861806-21-5P 861806-22-6P 861806-24-8P 861806-25-9P
861806-26-0P 861806-27-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(synthesis, DNA binding, and antimicrobial activity of dicationic diarylpyrroles)
IT 861806-23-7P 861806-28-2P 861806-29-3P
861806-30-6P 861806-31-7P 861806-32-8P
861806-33-9P 861806-34-0P 861806-35-1P
861806-36-2P 861806-38-4P 861806-39-5P
861806-40-8P 861806-41-9P
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation)
(synthesis, DNA binding, and antimicrobial activity of dicationic diarylpyrroles)
RN 861806-23-7 HCPLUS
CN Guanidine, N,N''-[(1-methyl-1H-pyrrole-2,5-diyl)di-4,1-phenylene]bis[N'-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)



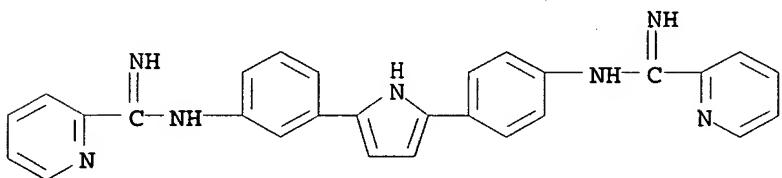
RN 861806-28-2 HCPLUS

CN Benzenecarboximidamide, N,N''-(1H-pyrrole-2,5-diyldi-3,1-phenylene)bis-(9CI) (CA INDEX NAME)



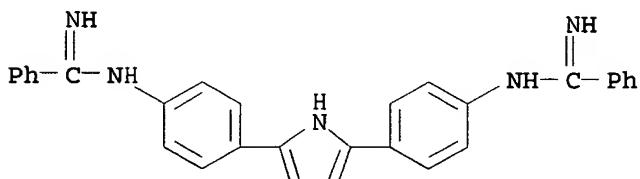
RN 861806-29-3 HCPLUS

CN 2-Pyridinecarboximidamide, N-[3-[5-[(imino-2-pyridinylmethyl)amino]phenyl]-1H-pyrrol-2-yl]phenyl- (9CI) (CA INDEX NAME)



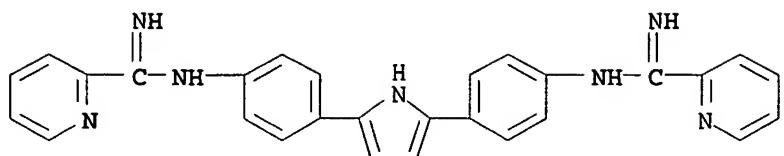
RN 861806-30-6 HCPLUS

CN Benzenecarboximidamide, N,N''-(1H-pyrrole-2,5-diyldi-4,1-phenylene)bis-(9CI) (CA INDEX NAME)



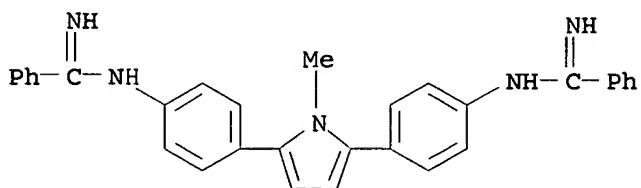
RN 861806-31-7 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-(1H-pyrrole-2,5-diyldi-4,1-phenylene)bis-(9CI) (CA INDEX NAME)



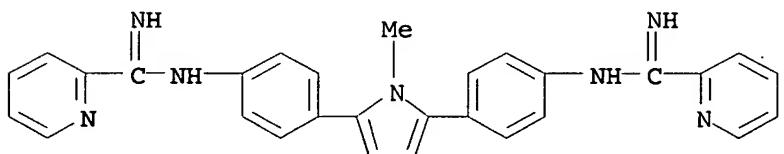
RN 861806-32-8 HCPLUS

CN Benzenecarboximidamide, N,N''-[(1-methyl-1H-pyrrole-2,5-diyl)di-4,1-phenylene]bis- (9CI) (CA INDEX NAME)



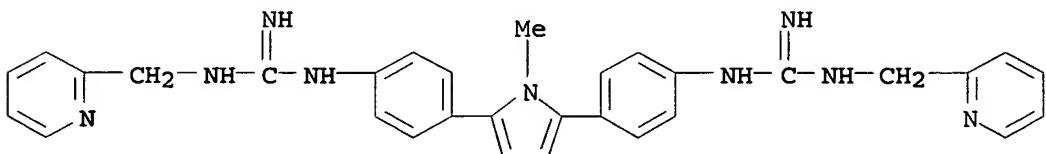
RN 861806-33-9 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[(1-methyl-1H-pyrrole-2,5-diyl)di-4,1-phenylene]bis- (9CI) (CA INDEX NAME)



RN 861806-34-0 HCPLUS

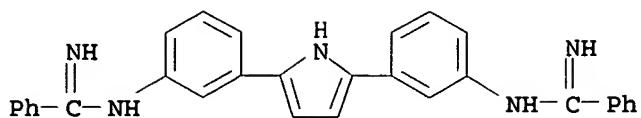
CN Guanidine, N,N''-[(1-methyl-1H-pyrrole-2,5-diyl)di-4,1-phenylene]bis[N'-(2-pyridinylmethyl)-, tetrahydrochloride (9CI) (CA INDEX NAME)



●4 HCl

RN 861806-35-1 HCPLUS

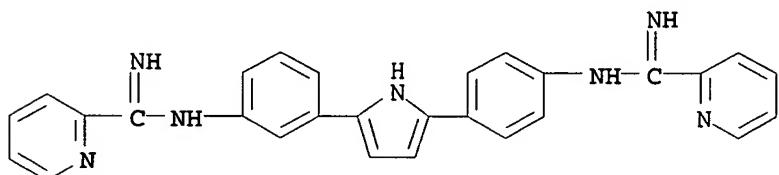
CN Benzenecarboximidamide, N,N''-(1H-pyrrole-2,5-diyl)di-3,1-phenylene]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 861806-36-2 HCPLUS

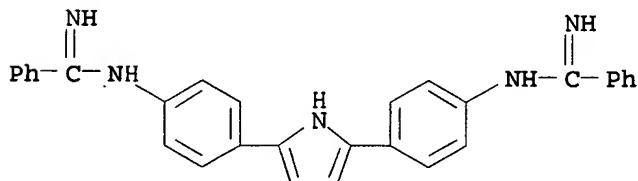
CN 2-Pyridinecarboximidamide, N-[3-[5-[4-[(imino-2-pyridinylmethyl)amino]phenyl]-1H-pyrrol-2-yl]phenyl]-, hydrochloride (3:7) (9CI) (CA INDEX NAME)



●7/3 HCl

RN 861806-38-4 HCPLUS

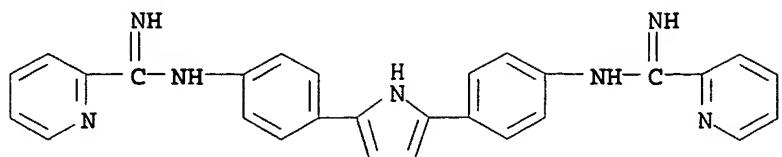
CN Benzenecarboximidamide, N,N''-(1H-pyrrole-2,5-diylidene-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 861806-39-5 HCPLUS

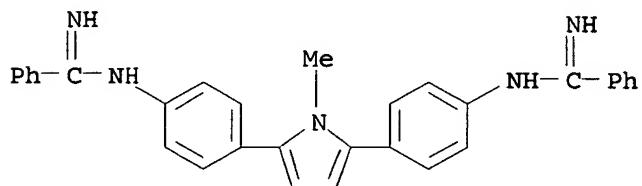
CN 2-Pyridinecarboximidamide, N,N''-(1H-pyrrole-2,5-diylidene-4,1-phenylene)bis-, hydrochloride (4:13) (9CI) (CA INDEX NAME)



●13/4 HCl

RN 861806-40-8 HCPLUS

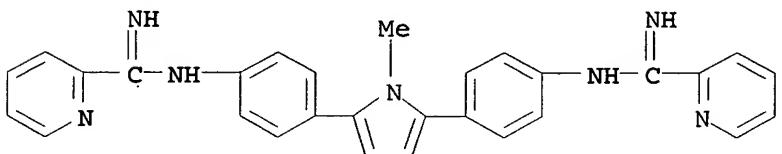
CN Benzenecarboximidamide, N,N''-[(1-methyl-1H-pyrrole-2,5-diyl)di-4,1-phenylene]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 861806-41-9 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[(1-methyl-1H-pyrrole-2,5-diyl)di-4,1-phenylene]bis-, hydrochloride (5:13) (9CI) (CA INDEX NAME)



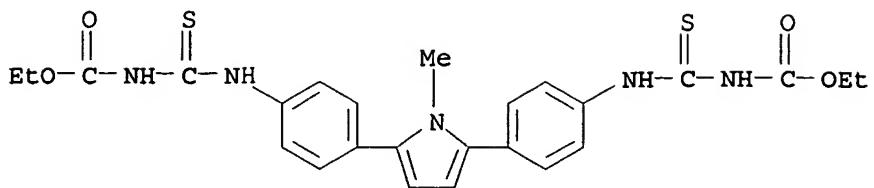
●13/5 HCl

IT 861806-21-5P 861806-22-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis, DNA binding, and antimicrobial activity of dicationic diarylpyrroles)

RN 861806-21-5 HCPLUS

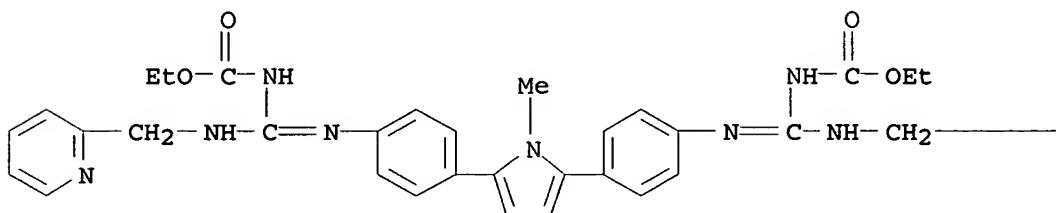
CN Carbamic acid, [(1-methyl-1H-pyrrole-2,5-diyl)bis(4,1-phenyleneiminocarbonothioyl)]bis-, diethyl ester (9CI) (CA INDEX NAME)



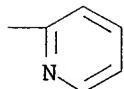
RN 861806-22-6 HCPLUS

CN Carbamic acid, [(1-methyl-1H-pyrrole-2,5-diyl)bis[4,1-phenyleneimino[[((2-pyridinylmethyl)amino)methylidyne]]]bis-, diethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 21 HCPLUS COPYRIGHT 2006 ACS on STN

AN 2004:743244 HCPLUS

DN 141:391803

TI Activities of dicationic compounds against Trichomonas vaginalis

AU Crowell, Andrea L.; Stephens, Chad E.; Kumar, Arvind; Boykin, David W.; Secor, W. Evan

CS Division of Parasitic Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA, USA

SO Antimicrobial Agents and Chemotherapy (2004), 48(9), 3602-3605

CODEN: AMACQ; ISSN: 0066-4804

PB American Society for Microbiology

DT Journal

LA English

AB The authors evaluated 44 novel cationic compds. for activity against metronidazole-sensitive and -resistant *Trichomonas vaginalis* isolates. Six compds. in three different structural classes demonstrated 50% inhibitory concns. as low as 1 μM against both sensitive and resistant isolates, suggesting a mode of action independent of parasite biochem.

pathways that confer resistance to 5-nitroimidazoles.

CC 10-5 (Microbial, Algal, and Fungal Biochemistry)

ST protozoacide Trichomonas

IT Protozoacides

Trichomonas vaginalis
 (activities of dicationic compds. against Trichomonas vaginalis)

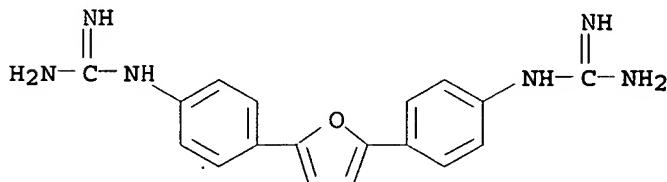
IT 100-33-4, Pentamidine 443-48-1, Metronidazole 908-54-3, Berenil 19387-91-8, Tinidazole 73819-26-8, DB75 173420-56-9, DB181 186953-56-0, DB289 192525-52-3, DB249 242807-42-7, DB 690 442842-45-7, DB673 790241-43-9, DB 818
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (activities of dicationic compds. against Trichomonas vaginalis)

IT 212829-47-5P, DB364 790241-42-8P, DB 507
 RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (activities of dicationic compds. against Trichomonas vaginalis)

IT 442842-45-7, DB673
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (activities of dicationic compds. against Trichomonas vaginalis)

RN 442842-45-7 HCAPLUS

CN Guanidine, N,N''-(2,5-furandiylidi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2004:60255 HCAPLUS
 DN 140:105258
 TI Benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms
 IN Borisy, Alexis; Keith, Curtis; Foley, Michael A.; Stockwell, Brent R.;
 Gaw, Debra A.
 PA Combinatorx, Incorporated, USA
 SO PCT Int. Appl., 79 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004006849	A2	20040122	WO 2003-US21984	20030715
	WO 2004006849	A3	20040603		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,			

KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003251904 A1 20040202 AU 2003-251904 20030715

PRAI US 2002-396151P P 20020715
WO 2003-US21984 W 20030715

OS MARPAT 140:105258

AB The invention features a method for treating a patient having a cancer or other neoplasm, by administering to the patient (i) a benzimidazole or a metabolite or analog thereof; and (ii) pentamidine or a metabolite or analog thereof simultaneously or within 14 days of each other in amts. sufficient to inhibit the growth of the neoplasm.

IC ICM A61K

CC 1-6 (Pharmacology)

ST benzimidazole compd pentamidine compd combination neoplasm treatment; antitumor benzimidazole compd pentamidine compd combination

IT Bone, neoplasm
(Ewing's sarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Sarcoma
(Ewing's; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Sarcoma
(Kaposi's; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Lymphoproliferative disorders
(Waldenstrom's macroglobulinemia; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Kidney, neoplasm
(Wilms'; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Nerve, neoplasm
(acoustic neuroma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Acute myeloid leukemia
(acute erythroblastic leukemia, acute; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
Lung, neoplasm
(adenocarcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Neuroglia, neoplasm
(astrocytoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Skin, neoplasm
(basal cell carcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(basal cell; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Acute lymphocytic leukemia

Acute monocytic leukemia

Acute myeloid leukemia

Acute myelomonocytic leukemia

Acute promyelocytic leukemia

Antitumor agents

Carcinoma

Chronic lymphocytic leukemia

Chronic myeloid leukemia

Drug delivery systems

Drug interactions
Drug screening
Hodgkin's disease
Human
Leukemia
Leukemia
Mammary gland, neoplasm
Melanoma
Neoplasm
Neuroglia, neoplasm
Ovary, neoplasm
Pancreas, neoplasm
Polycythemia vera
Prostate gland, neoplasm
Testis, neoplasm
Uterus, neoplasm
(benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Biliary tract, neoplasm
(bile duct, carcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(bladder; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(bronchial; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Bladder, neoplasm
Bronchi, neoplasm
Lung, neoplasm
Sebaceous gland
Sweat gland
(carcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Sarcoma
(cartilage chondrosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Uterus, neoplasm
(cervix; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(choledochal; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Cartilage, neoplasm
(chondrosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Neoplasm
(chordoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
Chorion, neoplasm
(choriocarcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Intestine, neoplasm
(colon, carcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(colon; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Neoplasm

(craniopharyngioma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Ovary, neoplasm
(cystadenocarcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(embryonal; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Brain, neoplasm
(ependymoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Sarcoma
(fibrosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Disease, animal
(heavy chain disease; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Blood vessel, neoplasm
(hemangioblastoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Blood vessel, neoplasm
Sarcoma
(hemangiosarcoma, lymphangiosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Blood vessel, neoplasm
Sarcoma
(hemangiosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(hepatocellular; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Liver, neoplasm
(hepatoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Drug delivery systems
(inhalants; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Drug delivery systems
(injections, i.m.; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Drug delivery systems
(injections, i.v.; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(large cell; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Myoma
Sarcoma
(leiomyosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Adipose tissue, neoplasm
Sarcoma
(liposarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Sarcoma
(lymphangioendotheliosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(medullary; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

- IT Brain, neoplasm
 - (medulloblastoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Nervous system, neoplasm
 - (meningioma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Mesothelium, neoplasm
 - (mesothelioma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Sarcoma
 - (myxosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Astrocyte
 - (neoplasm, astrocytoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Notochord
 - (neoplasm, chordoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Meninges
 - (neoplasm, meningioma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Oligodendrocyte
 - (neoplasm, oligodendrogloma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Schwann cell
 - (neoplasm, schwannoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Nerve, neoplasm
 - (neuroblastoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Lymphoma
 - (non-Hodgkin's; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Neuroglia, neoplasm
 - (oligodendrogloma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Drug delivery systems
 - (oral; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Bone, neoplasm
 - Sarcoma
 - (osteosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Carcinoma
 - Ovarian cystadenocarcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Thyroid gland, neoplasm
 - (papillary carcinoma, adenocarcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Thyroid gland, neoplasm
 - (papillary carcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Pineal gland
 - (pinealoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Carcinoma
 - (pulmonary adenocarcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)
- IT Carcinoma
 - (pulmonary small-cell; benzimidazole compound-pentamidine compound

combinations for the treatment of neoplasms)

IT Carcinoma
(pulmonary; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Drug delivery systems
(rectal; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Kidney, neoplasm
(renal cell carcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(renal cell; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Eye, neoplasm
(retinoblastoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Sarcoma
(rhabdomyosarcoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Nervous system, neoplasm
(schwannoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Testis, neoplasm
(seminoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Lung, neoplasm
(small-cell carcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(squamous cell; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Neoplasm
(synovioma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(thyroid papillary, adenocarcinoma; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT Carcinoma
(thyroid papillary; benzimidazole compound-pentamidine compound combinations for the treatment of neoplasms)

IT 51-17-2D, Benzimidazole, derivs. 60-56-0, Mercazole 100-33-4, Pentamidine 100-33-4D, Pentamidine, derivs. 101-62-2, Phenamidine 104-32-5, Propamidine 122-06-5, Stilbamidine 140-64-7, Pentamidine isethionate 148-79-8, Thiabendazole 495-99-8, Hydroxystilbamidine 496-00-4, Dibrompropamidine 536-71-0, Diminazene 548-73-2, Droperidol 618-39-3, Benzamidine 1402-38-6, Actinomycin 1438-30-8, Netropsin 1929-88-0, Benzthiazuron 2062-78-4, Pimozide 3459-96-9, Amicarbalide 6306-71-4, Lobendazole 11056-06-7, Bleomycin 14255-87-9, Parbendazole 17804-35-2, Benomyl 18691-97-9, Methabenzthiazuron 20559-55-1, Oxibendazole 20830-81-3, Daunorubicin 24370-25-0, 2-Benzimidazolylurea 26097-80-3, Cambendazole 26130-02-9, Frentizole 31430-15-6, Flubendazole 31430-18-9, Nocodazole 31431-39-7, Mebendazole 31431-39-7D, Mebendazole, derivs. 31431-43-3, Cyclobendazole 33016-12-5, TN-16 33763-36-9, 3,7-Dibenzofurandicarbonitrile 39389-47-4, Distamycin 41738-62-9, 3,7-Dibenzothiophenedicarbonitrile 41738-64-1, 3,7-Dibenzothiophenediamine 43210-67-9, Fenbendazole 53716-50-0, Oxfendazole 54029-12-8, Albendazole sulfoxide 54965-21-8, Albendazole 54965-21-8D, Albendazole, derivs. 57808-66-9, Domperidone 61570-90-9, Tioxidazole 66639-24-5 67019-91-4 68844-77-9, Astemizole 73590-58-6, Omeprazole 73819-26-8 74733-75-8 75184-71-3, Albendazole

sulfone 75846-15-0 75846-16-1 80434-77-1, NSC 181928 80498-71-1
 80498-74-4 83834-10-0 90509-02-7, Luxabendazole 91371-12-9
 94345-47-8, Heptamidine 100562-53-6 101689-95-6 116644-53-2,
 Mibefradil 124076-61-5, Butamidine 124076-65-9 148344-21-2
 157168-41-7 157168-42-8 157168-43-9 157168-44-0 157168-45-1
 157168-46-2 157168-47-3 157168-48-4 157168-49-5 157168-50-8
 157168-51-9 160522-89-4 161374-52-3, Nonamidine 165596-46-3
 166601-05-4 166601-10-1 166601-11-2 168637-58-9 173420-56-9
 173420-58-1 173420-61-6 173420-63-8 179118-03-7 179118-04-8
 179118-05-9 179118-08-2 179118-10-6 179118-22-0 186395-09-5
 186395-18-6 186395-20-0 186395-22-2 186395-24-4 186395-25-5
 186395-26-6 186395-28-8 186395-29-9 186395-30-2 190958-06-6
 190958-12-4 190958-16-8 200878-34-8 212829-50-0 213972-16-8
 216308-12-2 216308-13-3 216308-14-4 216308-16-6 216308-18-8
 216502-98-6 216502-99-7 216503-00-3 216503-01-4 216503-02-5
 216503-05-8 216503-06-9 216503-07-0 216503-08-1 216503-09-2
 219483-82-6 232940-82-8, 2,8-Dibenzofurandicarbonitrile 232940-83-9
 232940-84-0 247032-11-7 247032-13-9 247032-15-1 247032-16-2
 247032-17-3 247032-18-4 338945-24-7, 2,8-Dibenzofurandicarboximidamide
 415718-14-8 415718-17-1 415718-20-6 415718-26-2 415718-29-5
 415718-32-0, 2,8-Dibenzothiophenedicarboximidamide 415718-35-3
 415718-41-1, 3,7-Dibenzothiophenedicarboximidamide 415718-44-4
 415718-47-7 415718-50-2 442842-45-7 648415-30-9
 648415-31-0 648415-32-1 648415-33-2 648415-34-3
 648415-36-5 648415-37-6 648415-38-7
 648415-39-8 648415-40-1 648415-41-2
 648415-42-3 648415-43-4 648415-44-5 648415-45-6 648415-46-7
 648415-47-8 648415-48-9 648415-49-0 648415-50-3 648415-51-4
 648415-52-5 648415-53-6 648415-54-7 648415-55-8 648415-56-9
 648415-58-1 648415-59-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(benzimidazole compound-pentamidine compound combinations for the treatment
 of neoplasms)

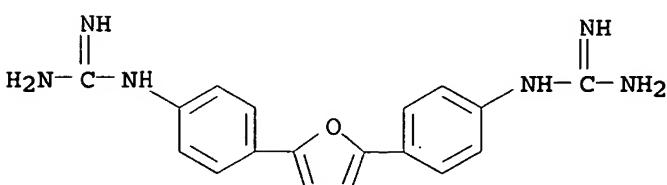
IT 442842-45-7 648415-34-3 648415-37-6
 648415-38-7 648415-39-8 648415-40-1
 648415-41-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)

(benzimidazole compound-pentamidine compound combinations for the treatment
 of neoplasms)

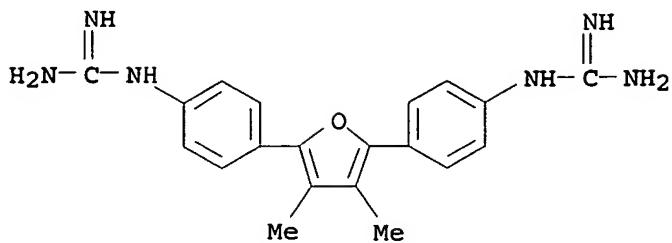
RN 442842-45-7 HCAPLUS

CN Guanidine, N,N''''-[(2,5-furandiyl)di-4,1-phenylene]bis- (9CI) (CA INDEX
 NAME)



RN 648415-34-3 HCAPLUS

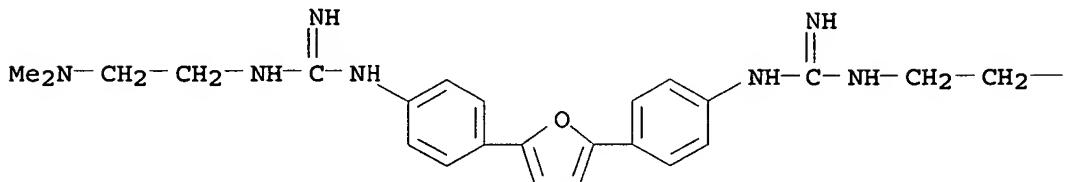
CN Guanidine, N,N''''-[(3,4-dimethyl-2,5-furandiyl)di-4,1-phenylene]bis- (9CI)
 (CA INDEX NAME)



RN 648415-37-6 HCPLUS

CN Guanidine, N,N'-(2,5-furandiyl-di-4,1-phenylene)bis[N'-(2-dimethylamino)ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

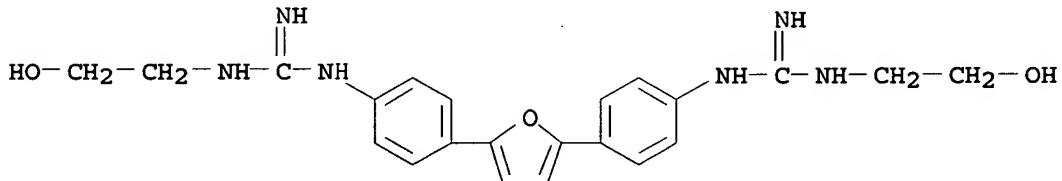


PAGE 1-B

-- NMe₂

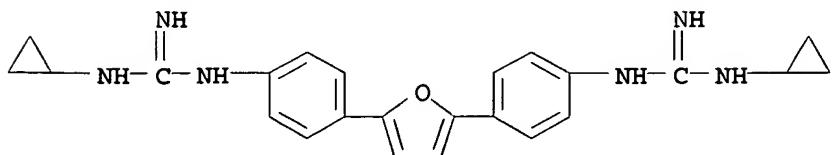
RN 648415-38-7 HCPLUS

CN Guanidine, N,N'-(2,5-furandiyl-di-4,1-phenylene)bis[N'-(2-hydroxyethyl)ethyl]- (9CI) (CA INDEX NAME)



RN 648415-39-8 HCPLUS

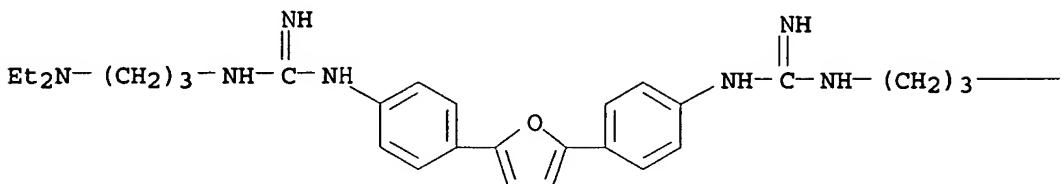
CN Guanidine, N,N'-(2,5-furandiyl-di-4,1-phenylene)bis[N'-(cyclopropylmethyl)-] (9CI) (CA INDEX NAME)



RN 648415-40-1 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylidene)bis[N'-(3-(diethylamino)propyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

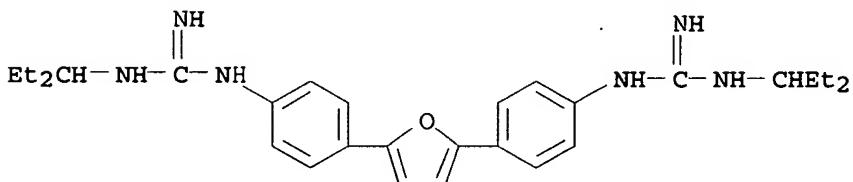


PAGE 1-B

— NET₂

RN 648415-41-2 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylidene)bis[N'-(1-ethylpropyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 10 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:60249 HCAPLUS

DN 140:122767

TI Pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms

IN Borisy, Alexis; Keith, Curtis; Foley, Michael A.; Stockwell, Brent R.; Gaw, Debra A.; Nichols, M. James; Lee, Margaret S.

PA Combinatorx, Incorporated, USA

SO PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2004006842	A2	20040122	WO 2003-US21803	20030711	
	WO 2004006842	A3	20040527			
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG,				

PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW	
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
CA 2492059 AA 20040122	CA 2003-2492059 20030711
AU 2003256511 A1 20040202	AU 2003-256511 20030711
US 2004116407 A1 20040617	US 2003-617424 20030711
BR 2003012597 A 20050510	BR 2003-12597 20030711
EP 1545544 A2 20050629	EP 2003-764557 20030711
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK	
CN 1681511 A 20051012	CN 2003-821151 20030711
JP 2005536509 T2 20051202	JP 2004-521730 20030711
NO 2005000204 A 20050408	NO 2005-204 20050113
PRAI US 2002-395233P P 20020711	
WO 2003-US21803 W 20030711	
OS MARPAT 140:122767	
AB The invention features a method for treating a patient having a cancer or other neoplasm by administering to the patient pentamidine (or an analog thereof) and chlorpromazine (or an analog thereof) simultaneously or within 14 days of each other in amts. sufficient to treat the patient.	
IC ICM A61K	
CC 1-6 (Pharmacology)	
ST pentamidine compd chlorpromazine compd combination neoplasm treatment; antitumor pentamidine compd chlorpromazine compd combination	
IT Bone, neoplasm (Ewing's sarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Sarcoma (Ewing's; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Sarcoma (Kaposi's; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Lymphoproliferative disorders (Waldenstrom's macroglobulinemia; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Kidney, neoplasm (Wilms'; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Nerve, neoplasm (acoustic neuroma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Acute myeloid leukemia (acute erythroblastic leukemia, acute; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Carcinoma Lung, neoplasm Ovary, neoplasm (adenocarcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Neuroglia, neoplasm (astrocytoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Skin, neoplasm (basal cell carcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)	
IT Carcinoma	

(basal cell; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Biliary tract, neoplasm
(bile duct, carcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
(bladder; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
(bronchial; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Bladder, neoplasm
Bronchi, neoplasm
Lung, neoplasm
Sebaceous gland
Sweat gland
(carcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Sarcoma
(cartilage chondrosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Uterus, neoplasm
(cervix; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
(choledochal; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Cartilage, neoplasm
(chondrosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Neoplasm
(chordoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
Chorion, neoplasm
(choriocarcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Intestine, neoplasm
(colon, carcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
Intestine, neoplasm
(colon; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Neoplasm
(craniopharyngioma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Ovary, neoplasm
(cystadenocarcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
(embryonal; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Brain, neoplasm
(ependymoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Sarcoma
(fibrosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Disease, animal

(heavy chain; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Blood vessel, neoplasm
(hemangioblastoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Blood vessel, neoplasm
Sarcoma
(hemangiosarcoma, lymphangiosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Blood vessel, neoplasm
Sarcoma
(hemangiosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
(hepatocellular; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Liver, neoplasm
(hepatoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Drug delivery systems
(inhalants; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Drug delivery systems
(injections, i.m.; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Drug delivery systems
(injections, i.v.; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Lung, neoplasm
(large-cell carcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Myoma
Sarcoma
(leiomyosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Adipose tissue, neoplasm
Sarcoma
(liposarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Sarcoma
(lymphangioendotheliosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
(medullary; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Brain, neoplasm
(medulloblastoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Nervous system, neoplasm
(meningioma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Mesothelium, neoplasm
(mesothelioma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Sarcoma
(myxosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Astrocyte
(neoplasm, astrocytoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Notochord
(neoplasm, chordoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Meninges
(neoplasm, meningioma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Oligodendrocyte
(neoplasm, oligodendrogloma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Schwann cell
(neoplasm, schwannoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Nerve, neoplasm
(neuroblastoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Lymphoma
(non-Hodgkin's; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Neuroglia, neoplasm
(oligodendrogloma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Drug delivery systems
(oral; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Bone, neoplasm
Sarcoma
(osteosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
(ovarian adenocarcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
(ovarian cystadenocarcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Thyroid gland, neoplasm
(papillary carcinoma, adenocarcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Thyroid gland, neoplasm
(papillary carcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Acute lymphocytic leukemia
Acute monocytic leukemia
Acute myeloid leukemia
Acute myelomonocytic leukemia
Acute promyelocytic leukemia
Angiogenesis inhibitors
Antitumor agents
Carcinoma
Chemotherapy
Chronic lymphocytic leukemia
Chronic myeloid leukemia
Cytotoxic agents
Drug delivery systems
Drug interactions
Gene therapy
Hodgkin's disease
Human
Immunotherapy
Leukemia
Leukemia

Lung, neoplasm
Mammary gland, neoplasm
Melanoma
Neoplasm
Neuroglia, neoplasm
Ovary, neoplasm
Pancreas, neoplasm
Polycythemia vera
Prostate gland, neoplasm
Radiotherapy
Surgery
Testis, neoplasm
Uterus, neoplasm
(pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Pineal gland
(pinealoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Carcinoma
(pulmonary adenocarcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Carcinoma
(pulmonary large-cell; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Carcinoma
(pulmonary small-cell; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Carcinoma
(pulmonary squamous cell; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Carcinoma
(pulmonary; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Drug delivery systems
(rectal; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Kidney, neoplasm
(renal cell carcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Carcinoma
(renal cell; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Eye, neoplasm
(retinoblastoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Sarcoma
(rhabdomyosarcoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Nervous system, neoplasm
(schwannoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Testis, neoplasm
(seminoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Lung, neoplasm
(small-cell carcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)
IT Lung, neoplasm
(squamous cell carcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
 (squamous cell; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Neoplasm
 (synovioma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
 (thyroid papillary, adenocarcinoma; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT Carcinoma
 (thyroid papillary; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT 95725-91-0 141436-78-4, Protein kinase C 300865-11-6, Protein tyrosine phosphatase 1B
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors; pentamidine compound-chlorpromazine compound combinations for the treatment of neoplasms)

IT 50-18-0, Cyclophosphamide 50-44-2, Mercaptopurine 50-52-2, Thioridazine 50-53-3D, Chlorpromazine, analogs 51-21-8, 5-Fluorouracil 57-22-7, Vincristine 58-38-8, Prochlorperazine 58-39-9, Perphenazine 59-05-2, Methotrexate 60-87-7, Promethazine 60-89-9, Mepazine 60-99-1, Methotriperazine 61-01-8, Methoxypromazine 69-23-8, Fluphenazine 84-06-0, Thiopropazate 84-97-9, Perazine 100-33-4, Pentamidine 100-33-4D, Pentamidine, analogs 101-62-2, Phenamidine 104-32-5, Propamidine 117-89-5, Trifluoperazine 122-06-5, Stilbamidine 146-54-3, Triflupromazine 148-82-3, Melphalan 154-93-8, Carmustine 305-03-3, Chlorambucil 362-29-8, Propiomazine 495-99-8, Hydroxystilbamidine 496-00-4, Dibrompropamidine 536-71-0, Diminazene 548-04-9, Hypericin 566-48-3, Formestane 618-39-3, Benzamidine 653-03-2, Butaperazine 865-21-4, Vinblastine 1225-64-5, Norchlorpromazine 1402-38-6, Actinomycin 1404-00-8, Mitomycin 1420-55-9, Thietethylperazine 1438-30-8, Netropsin 2095-24-1, Chlorfenethazine 3459-96-9, Amicarbalide 3546-03-0, Cyamemazine 10540-29-1, Tamoxifen 11056-06-7, Bleomycin 13311-84-7, Flutamide 15663-27-1, Cisplatin 20830-81-3, Daunorubicin 21679-14-1, Fludarabine 23214-92-8, Doxorubicin 33069-62-4, Paclitaxel 33419-42-0, Etoposide 33763-36-9, 3,7-Dibenzofuran dicarbonitrile 39389-47-4, Distamycin 41738-62-9, 3,7-Dibenzothiophenedicarbonitrile 41738-64-1, 3,7-Dibenzothiophenediamine 53714-56-0, Leuprorelin 56420-45-2, Epirubicin 63612-50-0, Nilutamide 65807-02-5, Goserelin 66639-24-5 67019-91-4 71486-22-1, Vinorelbine 73819-26-8 73819-28-0 74733-75-8 75846-15-0 75846-16-1 80498-71-1 80498-74-4 83834-10-0 89778-26-7 90357-06-5, Bicalutamide 91371-12-9 94345-47-8, Heptamidine 95058-81-4, Gemcitabine 97682-44-5, Irinotecan 100562-53-6 101689-95-6 107868-30-4, Exemestane 112809-51-5, Letrozole 112887-68-0, Raltitrexed 114977-28-5, Docetaxel 120511-73-1, Anastrozole 123948-87-8, Topotecan 124076-61-5, Butamidine 124076-65-9 148344-21-2 154361-50-9, Capecitabine 157168-41-7 157168-42-8 157168-43-9 157168-44-0 157168-45-1 157168-46-2 157168-47-3 157168-48-4 157168-49-5 157168-50-8 157168-51-9 160522-89-4 161374-52-3, Nonamidine 165596-46-3 166601-05-4 166601-10-1 166601-11-2 168637-58-9 173420-56-9 173420-58-1 173420-61-6 173420-63-8 174722-31-7, Rituximab 179118-03-7 179118-04-8 179118-05-9 179118-08-2 179118-10-6 179118-22-0 180288-69-1, Trastuzumab 186395-09-5 186395-18-6 186395-20-0 186395-22-2 186395-24-4 186395-25-5 186395-26-6 186395-27-7 186395-28-8 186395-29-9 186395-30-2 190958-06-6 190958-12-4 190958-16-8 200878-34-8 212829-50-0 213972-16-8 216308-12-2 216308-13-3 216308-14-4 216308-16-6 216308-18-8 216502-98-6 216502-99-7 216503-00-3 216503-01-4 216503-02-5

216503-05-8 216503-06-9 216503-07-0 216503-08-1 216503-09-2
 219483-82-6 232940-82-8, 2,8-Dibenzofurandicarbonitrile 232940-83-9
 232940-84-0 242807-42-7 247032-11-7 247032-13-9 247032-15-1
 247032-16-2 247032-17-3 247032-18-4 338945-24-7,
 2,8-Dibenzofurandicarboximidamide 415718-14-8 415718-17-1
 415718-20-6 415718-26-2 415718-29-5 415718-32-0,
 2,8-Dibenzothiophenedicarboximidamide 415718-35-3 415718-41-1,
 3,7-Dibenzothiophenedicarboximidamide 415718-44-4 415718-47-7
 415718-50-2 442842-45-7 648415-31-0 648415-32-1
 648415-33-2 648415-34-3 648415-36-5 648415-37-6
648415-38-7 648415-39-8 648415-40-1
 648415-41-2 648415-42-3 648415-43-4 648415-44-5
 648415-45-6 648415-46-7 648415-47-8 648415-48-9 648415-49-0
 648415-50-3 648415-51-4 648415-52-5 648415-53-6 648415-54-7
 648415-55-8 648415-58-1 648415-59-2 648417-90-7 648417-91-8
 648417-92-9 648417-93-0 648417-94-1 648417-95-2 648417-96-3
 648417-97-4 648417-98-5 648418-01-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (pentamidine compound-chlorpromazine compound combinations for the
 treatment of neoplasms)

IT 61-00-7, Acepromazine

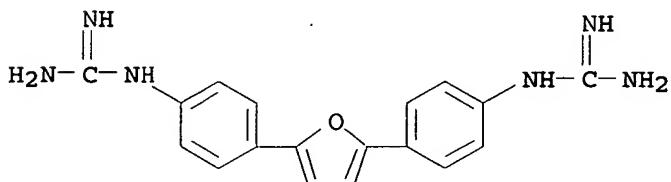
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (pentamidine compound-chlorpromazine compound combinations for treatment of
 neoplasms)

IT 442842-45-7 648415-34-3 648415-37-6
 648415-38-7 648415-39-8 648415-40-1
 648415-41-2

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (pentamidine compound-chlorpromazine compound combinations for the
 treatment of neoplasms)

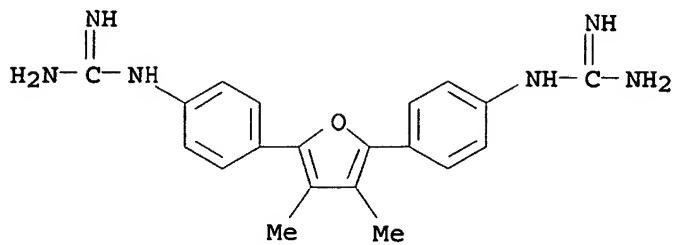
RN 442842-45-7 HCPLUS

CN Guanidine, N,N'--(2,5-furandiylidene)bis- (9CI) (CA INDEX
 NAME)



RN 648415-34-3 HCPLUS

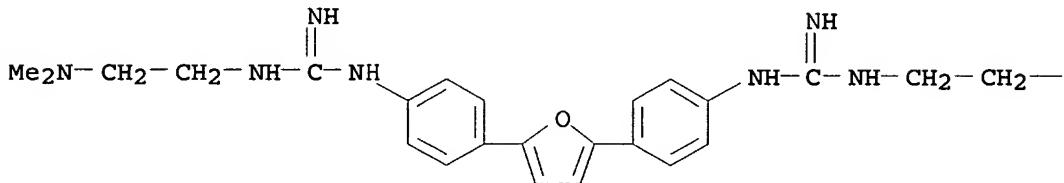
CN Guanidine, N,N'--[(3,4-dimethyl-2,5-furandiyl)di-4,1-phenylene]bis- (9CI)
 (CA INDEX NAME)



RN 648415-37-6 HCPLUS

CN Guanidine, N,N'-(2,5-furandiylidene)bis[N'-(2-dimethylamino)ethyl] (9CI) (CA INDEX NAME)

PAGE 1-A

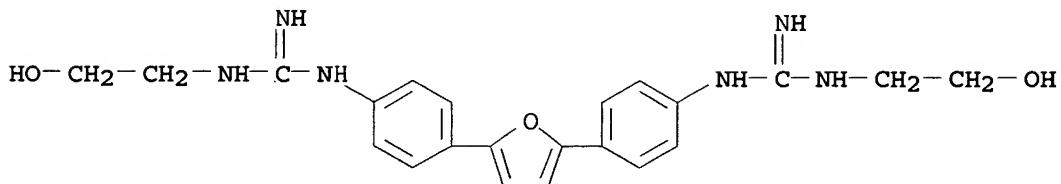


PAGE 1-B

---- NMe₂

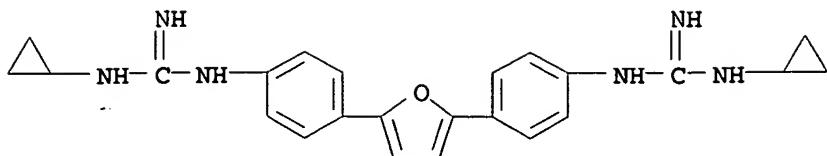
RN 648415-38-7 HCPLUS

CN Guanidine, N,N'-(2,5-furandiylidene)bis[N'-(2-hydroxyethyl)] (9CI) (CA INDEX NAME)



RN 648415-39-8 HCPLUS

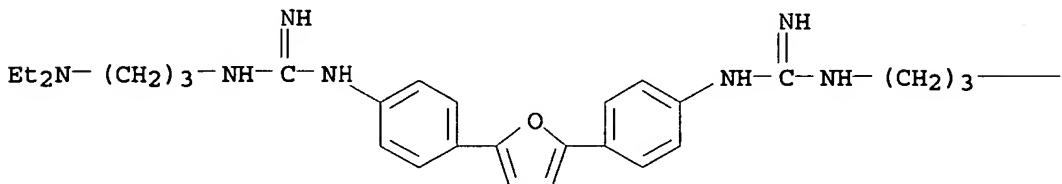
CN Guanidine, N,N'-(2,5-furandiylidene)bis[N'-(cyclopropylmethyl)ethyl] (9CI) (CA INDEX NAME)



RN 648415-40-1 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylidene)bis[N'-(3-diethylamino)propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

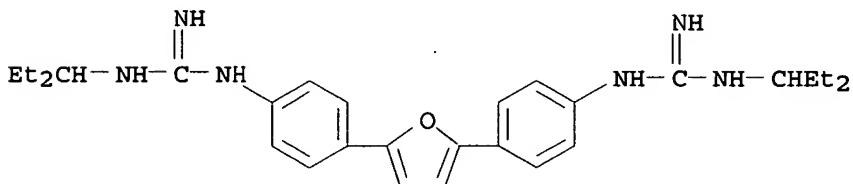


PAGE 1-B

— NET₂

RN 648415-41-2 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylidene)bis[N'-(1-ethylpropyl)- (9CI) (CA INDEX NAME)



L12 ANSWER 11 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:991295 HCAPLUS

DN 140:35966

TI Amidine derivatives for treating amyloidosis and neurodegenerative diseases

IN Chalifour, Robert J.; Kong, Xianqi; Wu, Xinfu; Lu, Wenshuo; Tidwell, Richard R.; Boykin, David

PA University of North Carolina At Chapel Hill, USA; Georgia State University Research Foundation, Inc.

SO PCT Int. Appl., 92 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003103598	A2	20031218	WO 2003-US17992	20030609
	WO 2003103598	A3	20060309		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2488493	AA	20031218	CA 2003-2488493	20030609
	AU 2003251418	A1	20031222	AU 2003-251418	20030609
	EP 1572129	A2	20050914	EP 2003-757414	20030609
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	JP 2006501160	T2	20060112	JP 2004-510719	20030609
	US 2004147531	A1	20040729	US 2003-731463	20031205
PRAI	US 2002-387001P	P	20020607		
	US 2001-316761P	P	20010831		
	US 2002-234643	A1	20020903		
	WO 2003-US17992	W	20030609		

AB The present invention relates to the use of amidine compds. in the treatment of amyloid related diseases. In particular, the invention relates to a method of treating or preventing an amyloid-related disease in a subject comprising administering to the subject a therapeutic amount of an amidine compound. Among the compds. for use according to the invention are those according to the following Formulas, such that, when administered, amyloid fibril formation, neurodegeneration, or cellular toxicity is reduced or inhibited.

IC ICM A61K

CC 1-11 (Pharmacology)

Section cross-reference(s): 28

ST amidine deriv prep amyloidosis neurodegenerative disease treatment

IT Brain, disease

(amyloid angiopathy; preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

IT Blood vessel, disease

(diabetic angiopathy; preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

IT Diabetes mellitus

(non-insulin-dependent; preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

IT Alzheimer's disease

Amyloidosis

Anti-Alzheimer's agents

(preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

IT 500713-83-7P 500713-91-7P 500713-94-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

IT 100-33-4 140-64-7 1670-14-0 2498-50-2 6275-69-0 22265-37-8

26130-55-2 28718-90-3 29148-07-0 34415-16-2 47165-04-8

50357-45-4	50357-46-5	50357-47-6	50357-48-7	50357-53-4
50357-58-9	53657-95-7	53657-96-8	53733-05-4	56406-50-9
56806-77-0	57928-60-6	59855-11-7	66639-09-6	66639-21-2
67833-74-3	71889-77-5,	5-Benzofuran carboximidamide		73819-26-8
74938-88-8	77838-86-9	77838-95-0	80498-65-3	84223-65-4
99800-90-5	100562-51-4	109444-03-3	118531-15-0	125880-47-9
125880-53-7	125880-82-2	129051-01-0	129051-04-3	147125-43-7
148344-27-8	152294-33-2	152294-34-3	159395-00-3	160522-87-2
163228-14-6	163228-15-7	163228-23-7	167569-14-4	173420-56-9
174912-15-3	179118-06-0	186395-26-6	186953-56-0	200205-81-8
200878-42-8	204589-04-8	206532-34-5	206532-37-8	242807-42-7
332360-11-9	423165-21-3	433735-87-6	433735-89-8	
500713-17-7	500713-22-4	500713-26-8	500713-29-1	500713-31-5
500713-33-7	500713-35-9	500713-38-2	500713-42-8	500713-45-1
500713-52-0	500713-56-4	500713-59-7	500713-61-1	500713-65-5
500713-68-8	500713-71-3	500713-74-6	500713-76-8	500713-79-1
500713-86-0	500713-89-3	500713-96-2	500714-00-1	500714-02-3
500714-04-5	500714-06-7	500714-08-9	500714-21-6	500714-23-8
500714-29-4	500714-31-8	500714-34-1	500714-40-9	500714-42-1
500714-44-3	500714-46-5	500714-48-7	500714-51-2	500714-53-4
500714-67-0	500714-69-2	500714-75-0	500714-77-2	500714-79-4
500714-81-8	500714-83-0	500714-86-3	500714-88-5	500714-90-9
500714-91-0	500714-92-1	500714-93-2	500714-94-3	500714-95-4
500714-96-5	500714-97-6	500714-98-7	500714-99-8	
500715-01-5	500715-02-6	500715-03-7	500715-04-8	
500715-05-9	500715-07-1	500715-08-2	500715-10-6	500715-12-8
500715-14-0	500715-16-2	500715-17-3	500715-18-4	500715-19-5
500715-20-8	500715-21-9	500715-22-0	500715-23-1	500715-24-2
500715-25-3	500715-26-4	500715-27-5	500715-28-6	500715-29-7
500715-30-0	500715-31-1	500715-32-2	500715-33-3	500715-34-4
500715-35-5	500715-36-6	500715-37-7	500715-38-8	500715-39-9
500715-40-2	500715-41-3	634601-53-9	634905-88-7	

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

IT 110-60-1, 1,4-Diaminobutane 111-24-0, 1,5-Dibromopentane 123-08-0,
 4-Hydroxybenzaldehyde 462-94-2, 1,5-Diaminopentane 767-00-0,
 4-Cyanophenol 1194-02-1, 4-Fluorobenzonitrile 4421-08-3,
 4-Hydroxy-3-methoxybenzonitrile 4549-31-9, 1,7-Dibromoheptane
 6068-72-0, 4-Cyanobenzoyl chloride 7467-71-2 14191-95-8,
 4-Hydroxybenzyl cyanide 21658-95-7, Diisopropyl (cyanomethyl)phosphonate
 50816-19-8, 8-Bromoocanol 55362-80-6, 9-Bromonanol 141716-84-9
 152120-54-2 304863-53-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

IT 77355-01-2P 112441-27-7P 125880-63-9P 500715-50-4P 500715-51-5P
 500715-52-6P 500715-53-7P 500715-54-8P 500715-57-1P 500715-58-2P
 634601-57-3P 634601-58-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

IT 634601-55-1P 634601-56-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of amidine derivs. for treating amyloidosis and neurodegenerative diseases)

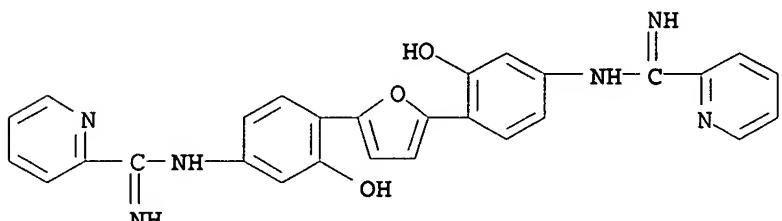
IT 423165-21-3 500714-96-5 500715-04-8

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)
 (preparation of amidine derivs. for treating amyloidosis and
 neurodegenerative diseases)

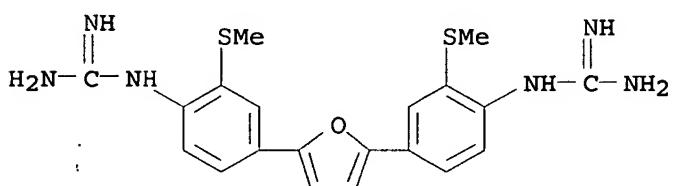
RN 423165-21-3 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'''-[2,5-furandiylbis(3-hydroxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



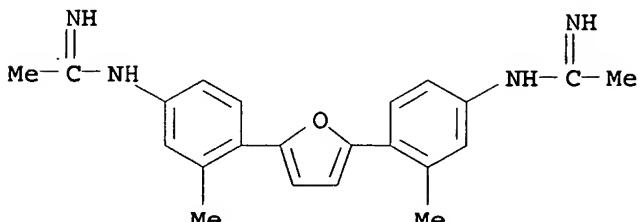
RN 500714-96-5 HCAPLUS

CN Guanidine, N,N'''-[2,5-furandiylbis[2-(methylthio)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



RN 500715-04-8 HCAPLUS

CN Ethanimidamide, N,N'''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



L12 ANSWER 12 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:941016 HCAPLUS

DN 141:33346

TI Inhibition of in vitro intracellular growth of *Trypanosoma cruzi* by dicationic compounds

AU Rowland, Edwin C.; Moore-Lai, Deborah; Seed, John R.; Stephens, Chad E.; Boykin, David W.

CS Biomedical Sciences Department, College of Osteopathic Medicine, Ohio University, Athens, OH, 45701, USA

SO Journal of Parasitology (2003), 89(5), 1078-1080
 CODEN: JOPAA2; ISSN: 0022-3395

PB American Society of Parasitologists

DT Journal

LA English

AB Dicationic compds., which are derivs. of pentamidine, are being developed for use as antiprotozoal drugs. These compds. bind to the minor groove of DNA and are thought to inhibit DNA-dependent enzymes and thereby prevent cellular replication by protozoans. The objective of this study was to test the ability of a group of these compds. to inhibit the intracellular and extracellular reproduction of Trypanosoma cruzi in vitro. At present, there are few drugs in use capable of inhibiting the intracellular stages of this parasite, and therefore compds. with this ability would be of value. Cultures of mouse fibroblasts were infected and treated with doses of dicationic compds., and the nos. of parasites released at the end of the 5-to 7-day growth cycle were determined. Five of the compds. tested were found to be effective at inhibiting T. cruzi growth at doses that were not toxic to the host cells. The compound found most effective (DB709) inhibited parasite release at the low concentration of 0.8 ng/mL, justifying further study. These results suggest that dicationic compds. may have potential as chemotherapy against T. cruzi infection.

CC 1-5 (Pharmacology)

ST cationic compd antimicrobial Trypanosoma growth

IT Infection

(Chagas' disease; inhibition of in vitro intracellular growth of Trypanosoma cruzi by dicationic compds.)

IT Growth, microbial

Protozoacides

Trypanosoma cruzi

(inhibition of in vitro intracellular growth of Trypanosoma cruzi by dicationic compds.)

IT 347191-09-7, DB 702 347191-14-4, DB 710

347191-16-6, DB 709 347191-18-8, DB 712

423165-12-2, DB 713 701979-67-1, DB 745

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibition of in vitro intracellular growth of Trypanosoma cruzi by dicationic compds.)

IT 347191-09-7, DB 702 347191-14-4, DB 710

347191-16-6, DB 709 347191-18-8, DB 712

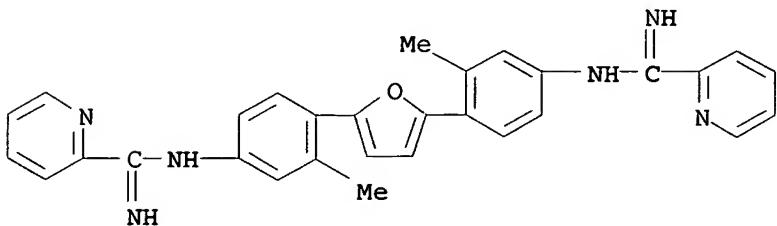
423165-12-2, DB 713 701979-67-1, DB 745

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibition of in vitro intracellular growth of Trypanosoma cruzi by dicationic compds.)

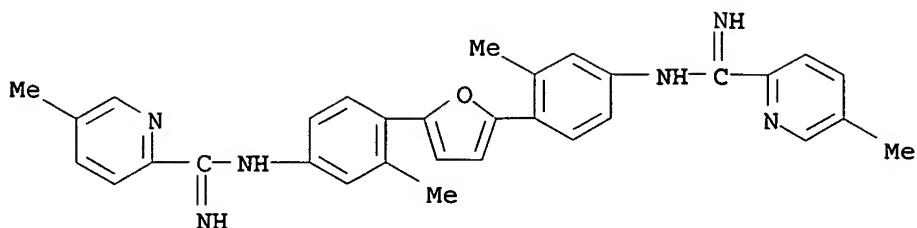
RN 347191-09-7 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



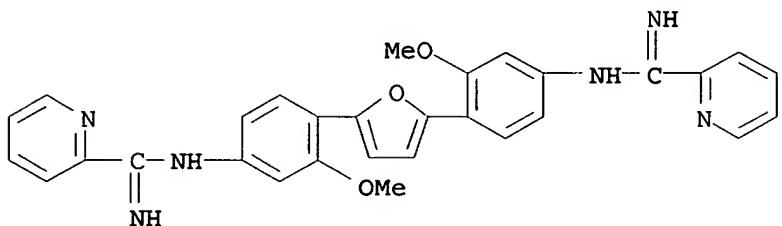
RN 347191-14-4 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl- (9CI) (CA INDEX NAME)



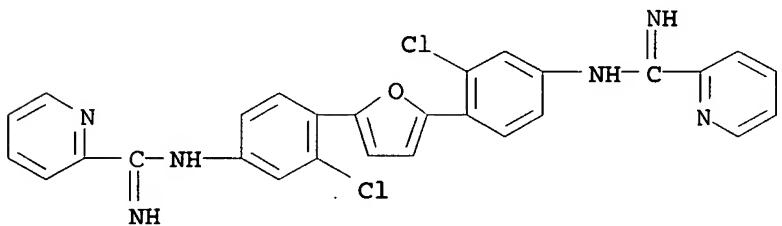
RN 347191-16-6 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



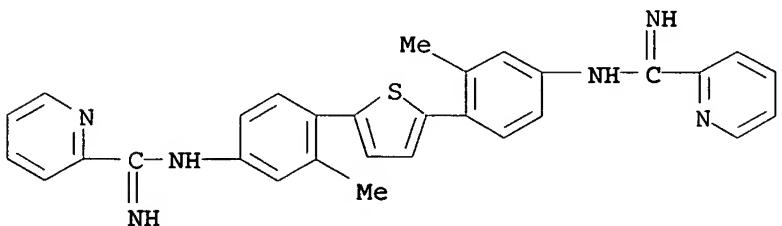
RN 347191-18-8 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



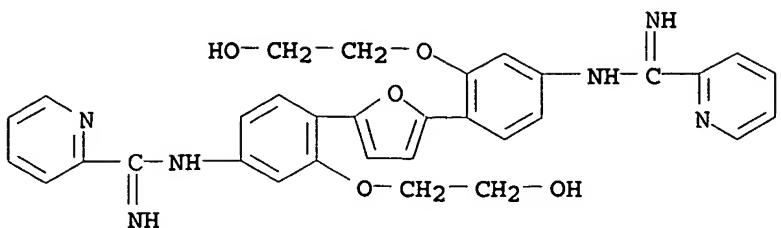
RN 423165-12-2 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-thiophenediylylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



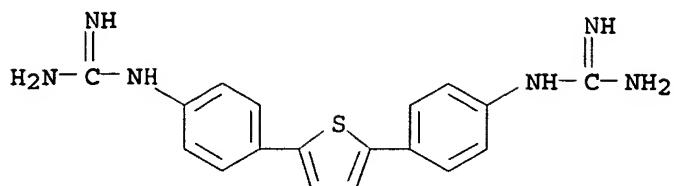
RN 701979-67-1 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(2-hydroxyethoxy)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:831312 HCAPLUS
 DN 141:225237
 TI Part i. synthesis of n-substituted 2,5-bis-[4-guanidinophenyl]thiophenes as potential antileishmanial compounds. part ii. synthesis of novel potential prodrugs of bis-guanidino and bis-amidino molecules
 AU Gonzalez-Roman, Jose Luis
 CS Georgia State Univ., Experiment, GA, USA
 SO (2002) 95 pp. Avail.: UMI, Order No. DA3075422
 From: Diss. Abstr. Int., B 2003, 63(12), 5849
 DT Dissertation
 LA English
 AB Unavailable
 CC 27-8 (Heterocyclic Compounds (One Hetero Atom))
 ST guanidonophenyl thiophene synthesis leishmanial inhibitor; prodrug potential bisguanidine bisamidine
 IT Functional groups
 (bisamidine; synthesis of novel potential prodrugs of bis-guanidino and bis-amidino mols.)
 IT Infection
 (leishmaniasis; synthesis of N-substituted 2,5-bis-[4-guanidinophenyl]thiophenes as potential antileishmanial compds.)
 IT Drug delivery systems
 (prodrugs; synthesis of novel potential prodrugs of bis-guanidino and bis-amidino mols.)
 IT 423165-31-5DP, derivative
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis of N-substituted 2,5-bis-[4-guanidinophenyl]thiophenes as potential antileishmanial compds.)
 IT 113-00-8DP, Guanidine, bis- derivs.
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis of novel potential prodrugs of bis-guanidino and bis-amidino mols.)
 IT 423165-31-5DP, derivative
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis of N-substituted 2,5-bis-[4-guanidinophenyl]thiophenes as potential antileishmanial compds.)
 RN 423165-31-5 HCAPLUS
 CN Guanidine, N,N''''-(2,5-thiophenediyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



L12 ANSWER 14 OF 21 HCPLUS COPYRIGHT 2006 ACS on STN

AN 2003:513253 HCPLUS

DN 139:390750

TI Detection of inhibition of bovine viral diarrhea virus by aromatic cationic molecules

AU Givens, M. Daniel; Dykstra, Christine C.; Brock, Kenny V.; Stringfellow, David A.; Kumar, Arvind; Stephens, Chad E.; Goker, Hakan; Boykin, David W.

CS Department of Pathobiology, College of Veterinary Medicine, Auburn University, Auburn, AL, 36849, USA

SO Antimicrobial Agents and Chemotherapy (2003), 47(7), 2223-2230
CODEN: AMACQ; ISSN: 0066-4804

PB American Society for Microbiology

DT Journal

LA English

OS CASREACT 139:390750

AB Bovine viral diarrhea virus (BVDV) is an economically significant pathogen of cattle and a problematic contaminant in the laboratory. BVDV is often used as

an in vitro model for hepatitis C virus during drug discovery efforts. Aromatic dicationic mols. have exhibited inhibitory activity against several RNA viruses. Thus, the purpose of this research was to develop and apply a method for screening the aromatic cationic compds. for in vitro cytotoxicity and activity against a noncytopathic strain of BVDV. The screening method evaluated the concentration of BVDV in medium and cell lysates after 72 h of cell culture in the presence of either a 25 or 5 μM concentration of the test compound. Five of 93 screened compds. were selected

for

further determination of inhibitory (90 and 50%) and cytotoxic (50 and 10%) concentration

endpoints. The screening method identified compds. that exhibited inhibition of BVDV at nanomolar concns. while exhibiting no cytotoxicity at 25 μM concns. The leading compds. require further investigation to determine their mechanism of action, in vivo activity, and specific activity against hepatitis C virus.

CC 1-5 (Pharmacology)

Section cross-reference(s): 27, 28

ST bovine viral diarrhea virus inhibition arom cationic compd

IT Antiviral agents

Bovine diarrhea virus

Cytotoxicity

(inhibition of bovine viral diarrhea virus by aromatic cationic mols.)

IT 73819-26-8 73819-28-0 80498-71-1 179118-06-0 186953-56-0

216308-19-9 216308-21-3 216308-23-5 332421-59-7 423165-11-1

423165-19-9 423165-25-7 423165-27-9

423165-30-4 423165-62-2 433735-89-8 433735-90-1

442842-41-3 442842-50-4 500714-92-1 500714-93-2

500714-94-3 625459-22-5 625459-25-8 625459-27-0 625459-48-5

625459-50-9 625459-52-1 625459-54-3 625459-56-5 625459-58-7

625459-61-2 625459-63-4 625459-66-7 625459-68-9 625459-70-3

625459-73-6 625459-75-8 625459-77-0 625459-79-2 625459-80-5

625459-82-7 625459-84-9 625459-86-1 625459-88-3
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (inhibition of bovine viral diarrhea virus by aromatic cationic mols.)

IT 442842-52-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (inhibition of bovine viral diarrhea virus by aromatic cationic mols.)

IT 423165-28-0P 442842-40-2P 625459-41-8P 625459-43-0P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation);
 USES (Uses)
 (preparation of aromatic cationic mols. as inhibitors of bovine viral
 diarrhea
 virus)

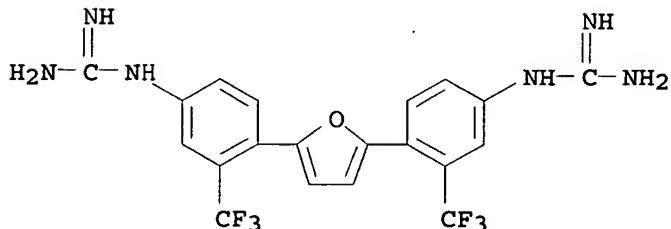
IT 106-51-4, 1,4-Benzoquinone, reactions 610-38-8, 3,4-Dinitrobromobenzene
 7147-77-5, 5-(4-Nitrophenyl)furan 193361-76-1, 2,5-
 Bis(tributylstannylyl)furan 625458-94-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of aromatic cationic mols. as inhibitors of bovine viral
 diarrhea
 virus)

IT 57279-70-6P 423165-37-1P 423165-50-8P 625458-97-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of aromatic cationic mols. as inhibitors of bovine viral
 diarrhea
 virus)

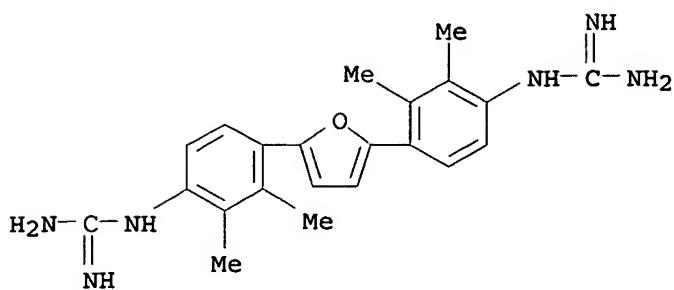
IT 423165-11-1 423165-19-9 423165-25-7
 423165-27-9 423165-30-4 423165-62-2
 442842-50-4
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (inhibition of bovine viral diarrhea virus by aromatic cationic mols.)

RN 423165-11-1 HCAPLUS

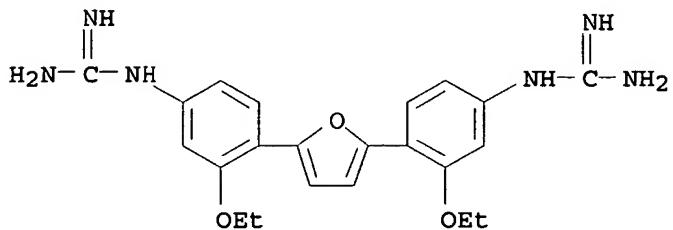
CN Guanidine, N,N''-[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis-
 (9CI) (CA INDEX NAME)



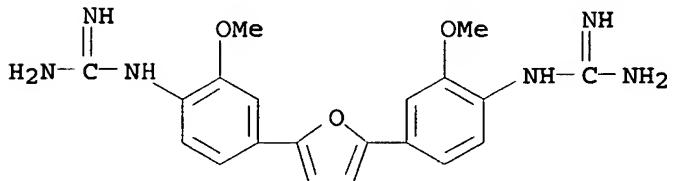
RN 423165-19-9 HCAPLUS
 CN Guanidine, N,N''-[2,5-furandiylbis(2,3-dimethyl-4,1-phenylene)]bis- (9CI)
 (CA INDEX NAME)



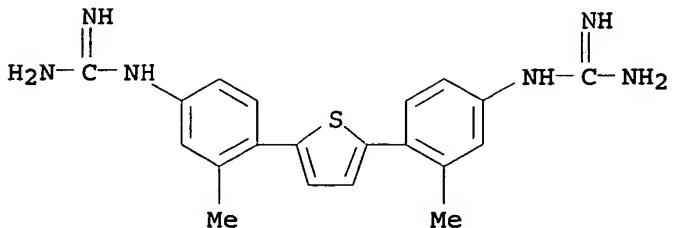
RN 423165-25-7 HCPLUS

CN Guanidine, N,N'-(2,5-furandiylbis(3-ethoxy-4,1-phenylene))bis- (9CI)
(CA INDEX NAME)

RN 423165-27-9 HCPLUS

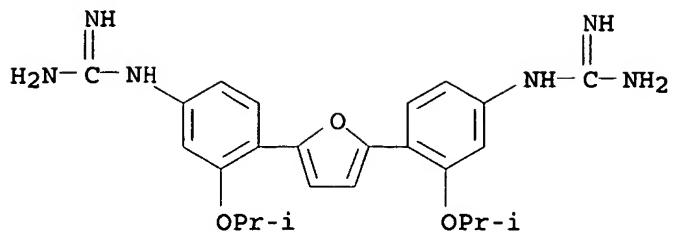
CN Guanidine, N,N'-(2,5-furandiylbis(2-methoxy-4,1-phenylene))bis- (9CI)
(CA INDEX NAME)

RN 423165-30-4 HCPLUS

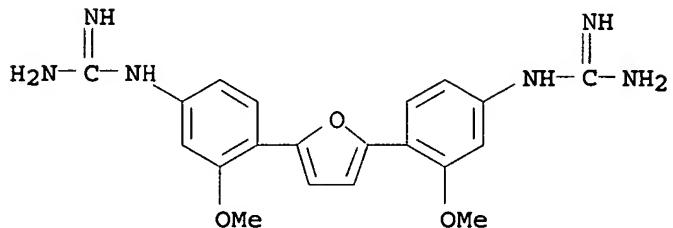
CN Guanidine, N,N'-(2,5-thiophenediylylbis(3-methyl-4,1-phenylene))bis- (9CI)
(CA INDEX NAME)

RN 423165-62-2 HCPLUS

CN Guanidine, N,N'-(2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene])bis- (9CI)
(CA INDEX NAME)



RN 442842-50-4 HCPLUS

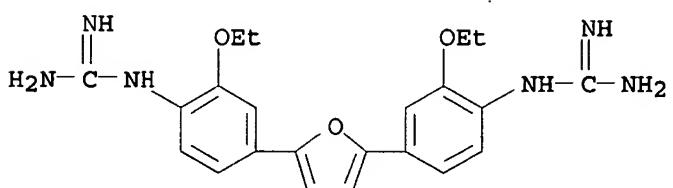
CN Guanidine, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI)
(CA INDEX NAME)

IT 423165-28-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

preparation of aromatic cationic mols. as inhibitors of bovine viral diarrhea virus

RN 423165-28-0 HCPLUS

CN Guanidine, N,N''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis- (9CI)
(CA INDEX NAME)RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 15 OF 21 HCPLUS COPYRIGHT 2006 ACS on STN

AN 2003:405950 HCPLUS

DN 139:194248

TI The activity of diguanidino and 'reversed' diamidino 2,5-diarylfurans versus Trypanosoma cruzi and Leishmania donovani

AU Stephens, Chad E.; Brun, Reto; Salem, Manar M.; Werbovetz, Karl A.; Tanius, Farial; Wilson, W. David; Boykin, David W.

CS Department of Chemistry, Georgia State University, Atlanta, GA, 30303-3083, USA

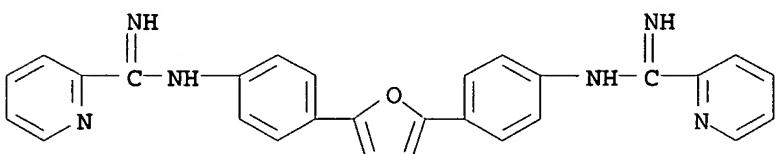
SO Bioorganic & Medicinal Chemistry Letters (2003), 13(12), 2065-2069
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science B.V.
DT Journal
LA English
AB The in vitro activity of 20 dicationic mols. containing either diguanidino or reversed amidine cationic groups were evaluated vs. Trypanosoma cruzi and Leishmania donovani. The most active compds. were in the reversed amidine series and six exhibited IC₅₀ values of less than 1 μmol vs. T. cruzi and five gave similar values vs. L. donovani.
CC 10-5 (Microbial, Algal, and Fungal Biochemistry)
Section cross-reference(s): 1, 27
ST diguanidino diamidino diarylfuran prepn protozoacide structure; Trypanosoma inhibition diguanidino diamidino diarylfuran structure; Leishmania inhibition diguanidino diamidino diarylfuran structure
IT Structure-activity relationship
(DNA-binding; activity of diguanidino and 'reversed' diamidino diarylfurans vs. Trypanosoma cruzi and Leishmania donovani in relation to DNA binding and cytotoxicity)
IT Leishmania donovani
Trypanosoma cruzi
Trypanosomicides
(activity of diguanidino and 'reversed' diamidino diarylfurans vs. Trypanosoma cruzi and Leishmania donovani in relation to DNA binding and cytotoxicity)
IT DNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(activity of diguanidino and 'reversed' diamidino diarylfurans vs. Trypanosoma cruzi and Leishmania donovani in relation to DNA binding and cytotoxicity)
IT Protozoacides
(leishmanicides; activity of diguanidino and 'reversed' diamidino diarylfurans vs. Trypanosoma cruzi and Leishmania donovani in relation to DNA binding and cytotoxicity)
IT Structure-activity relationship
(protozoacidal; activity of diguanidino and 'reversed' diamidino diarylfurans vs. Trypanosoma cruzi and Leishmania donovani in relation to DNA binding and cytotoxicity)
IT Infection
(protozoal; activity of diguanidino and 'reversed' diamidino diarylfurans vs. Trypanosoma cruzi and Leishmania donovani in relation to DNA binding and cytotoxicity)
IT 347190-99-2P 347191-09-7P 347191-16-6P
347191-18-8P 423165-10-0P 423165-11-1P
423165-18-8P 423165-19-9P 423165-27-9P
423165-28-0P 423165-29-1P 423165-62-2P
442842-45-7P 442842-49-1P 442842-50-4P
500714-96-5P 585571-89-7P 585571-90-0P
585571-91-1P
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(activity of diguanidino and 'reversed' diamidino diarylfurans vs. Trypanosoma cruzi and Leishmania donovani in relation to DNA binding and cytotoxicity)
IT 107819-90-9 193361-76-1 585571-88-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(activity of diguanidino and 'reversed' diamidino diarylfurans vs. Trypanosoma cruzi and Leishmania donovani in relation to DNA binding and cytotoxicity)

IT 347190-99-2P 347191-09-7P 347191-16-6P
 347191-18-8P 423165-10-0P 423165-11-1P
 423165-18-8P 423165-19-9P 423165-27-9P
 423165-28-0P 423165-29-1P 423165-62-2P
 442842-45-7P 442842-49-1P 442842-50-4P
 500714-96-5P 585571-89-7P 585571-90-0P
 585571-91-1P

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (activity of diguanidino and 'reversed' diamidino diarylfurans vs.
 Trypanosoma cruzi and Leishmania donovani in relation to DNA binding
 and cytotoxicity)

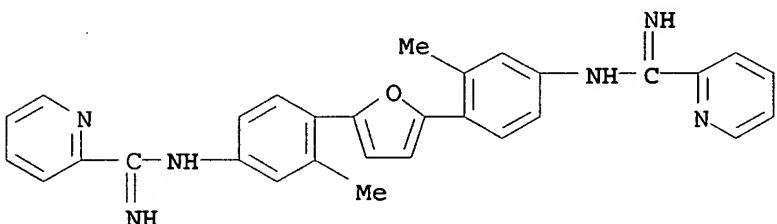
RN 347190-99-2 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiyl-4,1-phenylene)bis- (9CI)
 (CA INDEX NAME)



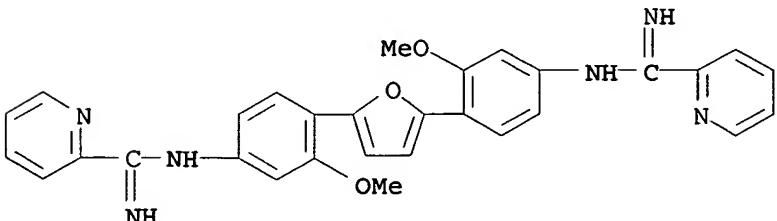
RN 347191-09-7 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



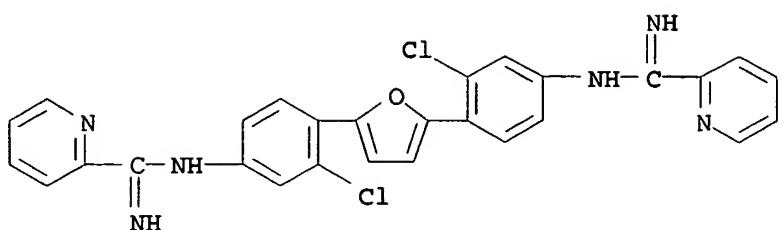
RN 347191-16-6 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

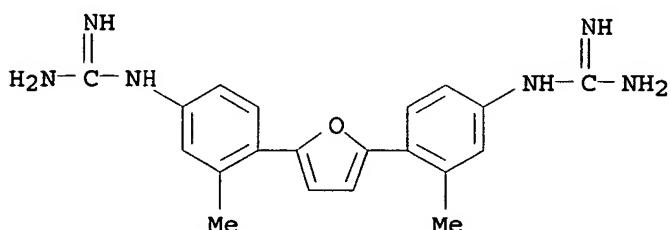


RN 347191-18-8 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

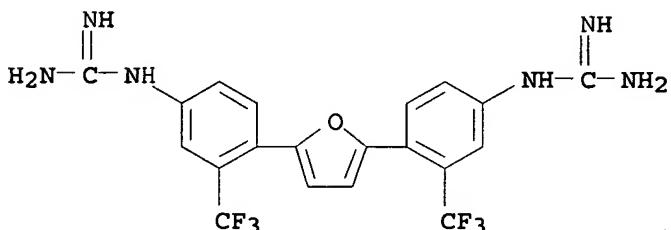


RN 423165-10-0 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis- (9CI)
(CA INDEX NAME)

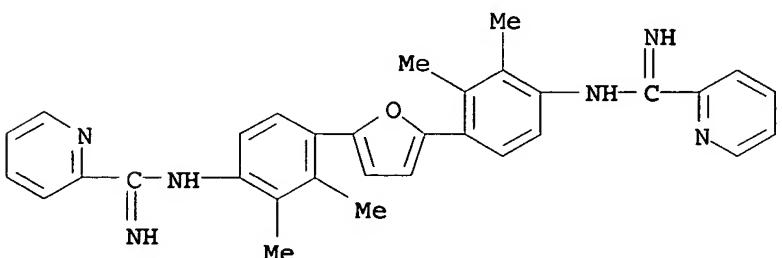
RN 423165-11-1 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene])bis- (9CI) (CA INDEX NAME)



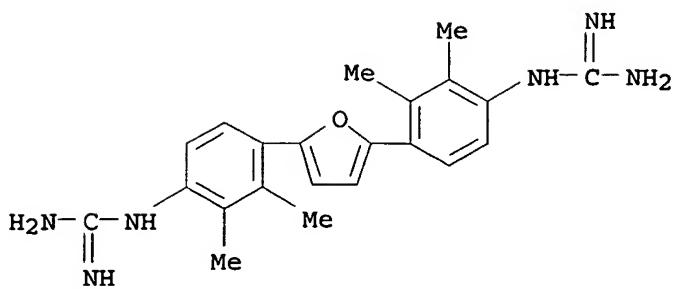
RN 423165-18-8 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(2,3-dimethyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)

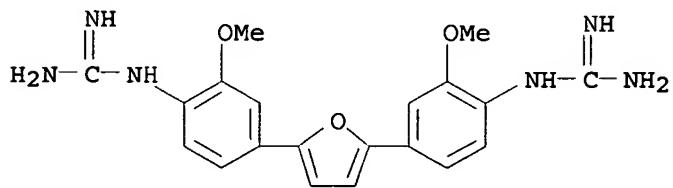


RN 423165-19-9 HCAPLUS

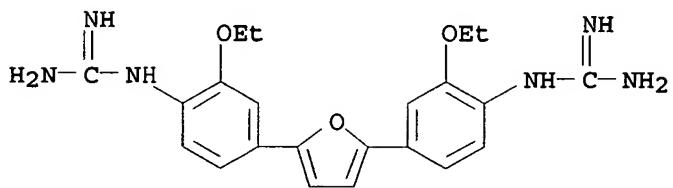
CN Guanidine, N,N'-(2,5-furandiylbis(2,3-dimethyl-4,1-phenylene))bis- (9CI)
(CA INDEX NAME)



RN 423165-27-9 HCAPLUS

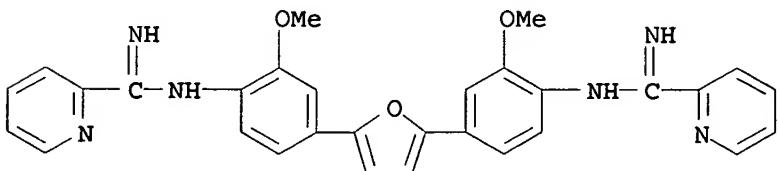
CN Guanidine, N,N'-(2,5-furandiylbis(2-methoxy-4,1-phenylene))bis- (9CI)
(CA INDEX NAME)

RN 423165-28-0 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylbis(2-ethoxy-4,1-phenylene))bis- (9CI)
(CA INDEX NAME)

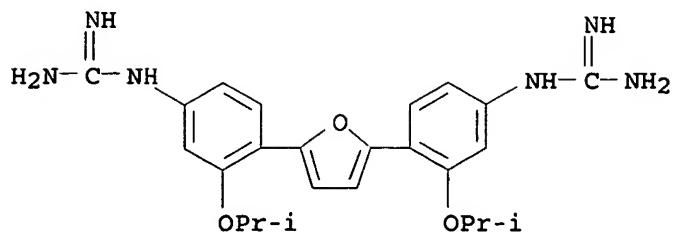
RN 423165-29-1 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(2-methoxy-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



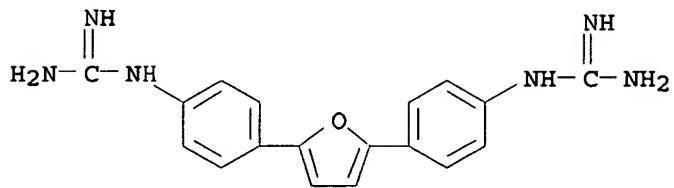
RN 423165-62-2 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene])bis- (9CI) (CA INDEX NAME)



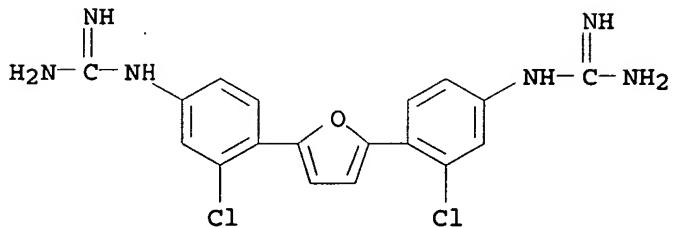
RN 442842-45-7 HCPLUS

CN Guanidine, N,N'-(2,5-furandiyl-di-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



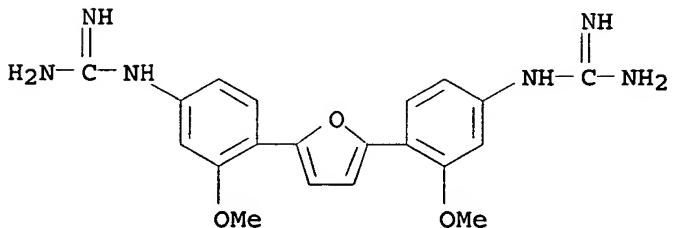
RN 442842-49-1 HCPLUS

CN Guanidine, N,N'-(2,5-furandiylb(is(3-chloro-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



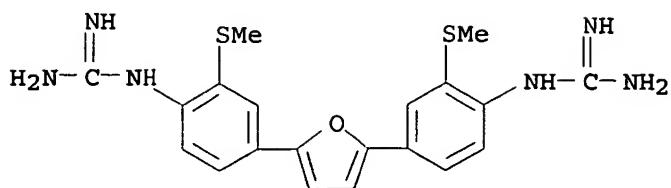
RN 442842-50-4 HCPLUS

CN Guanidine, N,N'-(2,5-furandiylb(is(3-methoxy-4,1-phenylene))bis- (9CI) (CA INDEX NAME)

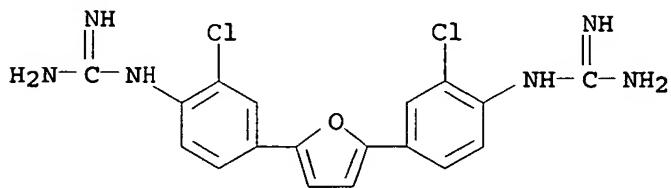


RN 500714-96-5 HCPLUS

CN Guanidine, N,N'-(2,5-furandiylb(is(2-(methylthio)-4,1-phenylene))bis- (9CI) (CA INDEX NAME)

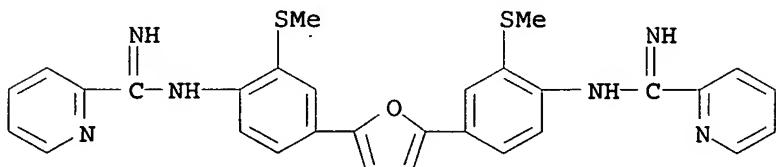


RN 585571-89-7 HCAPLUS

CN Guanidine, N,N''-[2,5-furandiylbis(2-chloro-4,1-phenylene)]bis- (9CI)
(CA INDEX NAME)

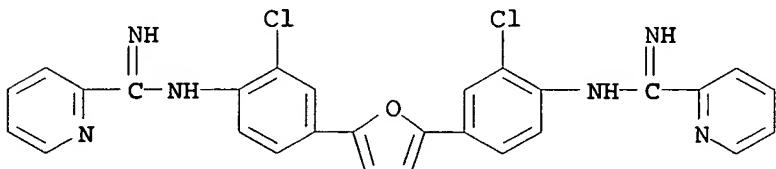
RN 585571-90-0 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[2-(methylthio)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



RN 585571-91-1 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 16 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:173414 HCAPLUS

DN 138:215350

TI Amidine derivatives for treating amyloid-related diseases

IN Chalifour, Robert J.; Kong, Xianqi; Wu, Xinfu; Lu, Wenshuo

PA Neurochem Inc., Can.

SO PCT Int. Appl., 114 pp.

CODEN: PIXXD2

DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003017994	A1	20030306	WO 2002-CA1353	20020903
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2455497	AA	20030306	CA 2002-2455497	20020903
	US 2004006092	A1	20040108	US 2002-234643	20020903
	EP 1420773	A1	20040526	EP 2002-758012	20020903
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	BR 2002012078	A	20040928	BR 2002-12078	20020903
	JP 2005504053	T2	20050210	JP 2003-522514	20020903
	CN 1658852	A	20050824	CN 2002-815770	20020903
	US 2004147531	A1	20040729	US 2003-731463	20031205
	NO 2004000497	A	20040414	NO 2004-497	20040204
PRAI	US 2001-316761P	P	20010831		
	US 2002-387001P	P	20020607		
	US 2002-234643	A1	20020903		
	WO 2002-CA1353	W	20020903		

OS MARPAT 138:215350

AB The invention discloses the use of amidine compds. in the treatment of amyloid-related diseases (e.g. Alzheimer's disease, Down's syndrome, type II diabetes). In particular, the invention discloses a method for treating or preventing an amyloid-related disease in a subject comprising administering to the subject a therapeutic amount of an amidine compound. The compds. of the invention (Markush included) are such that, when administered, reduce or inhibit amyloid fibril formation, neurodegeneration, or cellular toxicity. Compound preparation is described.

IC ICM A61K031-155

CC 1-12 (Pharmacology)

Section cross-reference(s): 25, 28

ST amyloid disease treatment amidine deriv prep; Alzheimer disease treatment amidine deriv; Down syndrome diabetes treatment amidine deriv; fibril amyloid inhibition amidine deriv; neurodegeneration cell toxicity inhibition amyloid disease treatment amidine deriv

IT Peptides, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (A β (1-40); amidine derivs. for treating amyloid-related diseases)

IT Alzheimer's disease

Anti-Alzheimer's agents

Antidiabetic agents

Cognition

Cognition enhancers

Cognitive disorders

Cytoprotective agents

Cytotoxicity

Down's syndrome

Drug delivery systems

Human
 (amidine derivs. for treating amyloid-related diseases)

IT Amyloid
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (amidine derivs. for treating amyloid-related diseases)

IT Amidines
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (amidine derivs. for treating amyloid-related diseases)

IT Brain, disease
 (amyloid angiopathy; amidine derivs. for treating amyloid-related diseases)

IT Nerve, disease
 (degeneration; amidine derivs. for treating amyloid-related diseases)

IT Organelle
 (fibril, amyloid fibril formation inhibition; amidine derivs. for
 treating amyloid-related diseases)

IT Myositis
 (inclusion body; amidine derivs. for treating amyloid-related diseases)

IT Cytoprotective agents
 (neuroprotective; amidine derivs. for treating amyloid-related
 diseases)

IT Diabetes mellitus
 (non-insulin-dependent; amidine derivs. for treating amyloid-related
 diseases)

IT Amyloid
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (β -; amidine derivs. for treating amyloid-related diseases)

IT 159395-00-3
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (2amidine derivs. for treating amyloid-related diseases)

IT 106602-62-4, Islet amyloid polypeptide
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (amidine derivs. for treating amyloid-related diseases)

IT 6275-69-0P 50357-45-4P 50357-46-5P 50357-47-6P 50357-48-7P
 50381-89-0P 84223-65-4P 125880-47-9P 125880-82-2P 129051-04-3P
 500713-17-7P 500713-22-4P 500713-26-8P 500713-29-1P 500713-31-5P
 500713-33-7P 500713-35-9P 500713-74-6P 500713-76-8P 500713-86-0P
 500713-91-7P 500713-93-9P 500715-05-9P 500715-08-2P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (amidine derivs. for treating amyloid-related diseases)

IT 100-33-4 140-64-7 1670-14-0 2498-50-2 22265-37-8 26130-55-2
 28718-90-3 29148-07-0 34415-16-2 50357-53-4 50357-58-9
 53657-95-7 53657-96-8 53733-05-4 56406-50-9 56806-77-0
 57928-60-6 59855-11-7 66639-09-6 66639-21-2 67833-70-9
 67833-74-3 71889-77-5, 5-Benzofurancarboximidamide 73819-26-8
 74938-88-8 77838-86-9 77838-95-0 80498-65-3 99800-90-5
 100562-51-4 109444-03-3 118531-15-0 125880-53-7 125880-64-0
 129051-01-0 147125-43-7 148344-27-8 152294-33-2 152294-34-3
 160522-87-2 163228-14-6 163228-15-7 163228-23-7 167569-14-4
 173420-56-9 174912-15-3 179118-06-0 186395-26-6 186953-56-0
 200205-81-8 200878-42-8 204589-04-8 206532-34-5 206532-37-8
 242807-42-7 332360-11-9 423165-21-3 433735-87-6
 433735-89-8 500713-38-2 500713-42-8 500713-45-1 500713-52-0
 500713-56-4 500713-59-7 500713-61-1 500713-63-3 500713-65-5
 500713-68-8 500713-71-3 500713-79-1 500713-83-7 500713-88-2
 500713-89-3 500713-94-0 500713-96-2 500714-00-1 500714-02-3

500714-04-5	500714-06-7	500714-08-9	500714-21-6	500714-23-8
500714-29-4	500714-31-8	500714-34-1	500714-40-9	500714-42-1
500714-44-3	500714-46-5	500714-48-7	500714-51-2	500714-53-4
500714-67-0	500714-69-2	500714-75-0	500714-77-2	500714-79-4
500714-81-8	500714-83-0	500714-86-3	500714-88-5	500714-90-9
500714-91-0	500714-92-1	500714-93-2	500714-94-3	500714-95-4
500714-96-5	500714-97-6	500714-98-7	500714-99-8	
500715-01-5	500715-02-6	500715-03-7	500715-04-8	
500715-07-1	500715-10-6	500715-12-8	500715-14-0	500715-16-2
500715-17-3	500715-18-4	500715-19-5	500715-20-8	500715-21-9
500715-22-0	500715-23-1	500715-24-2	500715-25-3	500715-26-4
500715-27-5	500715-28-6	500715-29-7	500715-30-0	500715-31-1
500715-32-2	500715-33-3	500715-34-4	500715-35-5	500715-36-6
500715-37-7	500715-38-8	500715-39-9	500715-40-2	500715-41-3
500715-43-5	500715-44-6	500715-45-7	500715-46-8	500715-47-9
500715-48-0	500715-49-1			

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(amidine derivs. for treating amyloid-related diseases)

IT 107-15-3, Ethylenediamine, reactions 110-52-1, 1,4-Dibromobutane
 110-60-1, 1,4-Diaminobutane 111-24-0, 1,5-Dibromopentane 123-08-0,
 4-Hydroxybenzaldehyde 462-94-2, 1,5-Diaminopentane 767-00-0,
 4-Cyanophenol 1194-02-1, 4-Fluorobenzonitrile 4421-08-3 4549-31-9,
 1,7-Dibromoheptane 5470-11-1, Hydroxylamine hydrochloride 6068-72-0,
 4-Cyanobenzoyl chloride 7664-41-7, Ammonia, reactions 14191-95-8,
 4-Hydroxybenzylcyanide 21658-95-7, Diisopropyl(cyanomethyl)phosphonate
 50816-19-8, 8-Bromoocanol 55362-80-6, 9-Bromonanol 112441-27-7
 141716-84-9 152120-54-2 500715-51-5

RL: RCT (Reactant); RACT (Reactant or reagent)

(amidine derivs. for treating amyloid-related diseases)

IT 1246-12-4P 1248-95-9P 7467-71-2P 7476-06-4P 50381-94-7P
 77355-01-2P 94291-61-9P 125880-63-9P 132400-81-8P 224054-32-4P
 500715-52-6P 500715-53-7P 500715-54-8P 500715-55-9P 500715-56-0P
 500715-57-1P 500715-58-2P 500715-59-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(amidine derivs. for treating amyloid-related diseases)

IT 500715-50-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(amidine derivs. for treating amyloid-related diseases)

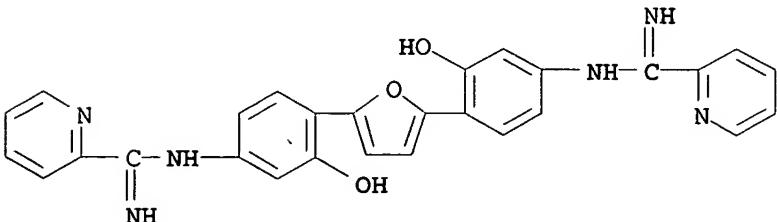
IT 423165-21-3 500714-96-5 500715-04-8

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(amidine derivs. for treating amyloid-related diseases)

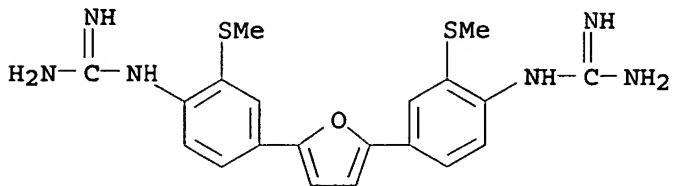
RN 423165-21-3 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-hydroxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



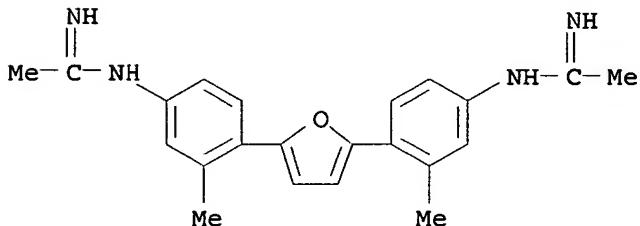
RN 500714-96-5 HCPLUS

CN Guanidine, N,N'--[2,5-furandiylbis[2-(methylthio)-4,1-phenylene]]bis-
(9CI) (CA INDEX NAME)



RN 500715-04-8 HCPLUS

CN Ethanimidamide, N,N'--[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI)
(CA INDEX NAME)



RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 17 OF 21 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:10892 HCPLUS
 DN 139:30167
 TI Distribution of furamidine analogues in tumor cells: targeting of the nucleus or mitochondria depending on the amidine substitution
 AU Lansiaux, Amelie; Tanious, Farial; Mishal, Zohar; Dassonneville, Laurent; Kumar, Arvind; Stephens, Chad E.; Hu, Qiyue; Wilson, W. David; Boykin, David W.; Bailly, Christian
 CS Institut National de la Sante et de la Recherche Medicale U-524 et Laboratoire de Pharmacologie Antitumorale du Centre Oscar Lambret, Lille, 59045, Fr.
 SO Cancer Research (2002), 62(24), 7219-7229
 CODEN: CNREA8; ISSN: 0008-5472
 PB American Association for Cancer Research
 DT Journal
 LA English
 AB Diphenylfuran diamidines represent an important class of DNA minor groove binders of high therapeutic interest as antiparasitic or antitumor agents depending on the compds. structures. To exert their cytotoxic action, the compds. must first get into the cell and reach the nuclear compartment where the main target, DNA, is located. The forces that drive the drugs into cell nuclei, as well as the influence of the mol. structures on the cell distribution, are not known. To address these issues, we took advantage of the fluorescence of the mols. to analyze their intracellular distribution profiles in tumor cells of different origins (B16 melanoma, MCF7 mammary adenocarcinoma, A549 lung carcinoma, HT29 colon carcinoma, LNCaP, and PC3 prostatic carcinoma) by epifluorescence and confocal microscopy. A homogeneous series of synthetic bis-substituted alkyl or Ph amidine and reverse amidine derivs. of furamidine was used to dissect the

mol. mechanisms that control the distribution of the drugs into the cytoplasm or the nucleus of the cells. The amidine (DB75) and the various N-alkyl derivs. were found to accumulate selectively in the cell nuclei. This is also the case for a guanidine derivative but not for the phenyl-substituted compound DB569, which essentially localizes in cytoplasmic granules. Similar cytoplasmic patterns were observed with a reverse amidine analog and a pyridine-substituted compound indicating that the presence of aromatic rings on the terminal side chain is the limiting factor that restricts the uptake of the compds. in the nuclear compartment. The use of different organelle-selective fluorescent probes, such as JC-1 and chloromethyl-X-rosamine, both specific to mitochondria and neutral red considered as a lysosome-selective probe, suggests that DB569 preferentially accumulates in mitochondria. Competition expts. with the antitumor drug daunomycin reveal that the diphenylfurans are attracted into the nuclei by the DNA. The DNA minor groove-drug interactions provide the driving force that permits massive accumulation of the fluorescent mols. in the nuclei. The DNA binding properties of the diphenylfuran derivs. were investigated by DNase I footprinting and surface plasmon resonance biosensor expts. to measure sequence selectivity and binding affinities, resp. Furamidine and its phenyl-substituted analog that accumulate in the cell nuclei and mitochondria, resp., share a common selectivity for AT sites and bind equally tightly to these sites. Therefore, it is possible to modulate the intracellular distribution of the furamidine derivs. without affecting their DNA binding and sequence recognition properties. The introduction of aromatic substituents on diphenylfuran diamidines represents a novel strategy to control the intracellular compartmentalization of these DNA binding agents and directs them to mitochondria. This drug design strategy may prove useful to trigger drug-induced apoptosis.

CC 1-3 (Pharmacology)
ST furamidine analog structure tumor nucleus mitochondria targeting DNA binding
IT Mammary gland, neoplasm
(adenocarcinoma; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)
IT Lung, neoplasm
Prostate gland, neoplasm
(carcinoma; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)
IT Intestine, neoplasm
(colon, carcinoma; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)
IT Carcinoma
(colon; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)
IT Biological transport
(intracellular; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)
IT Carcinoma
(mammary adenocarcinoma; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)
IT Carcinoma
(prostatic; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)
IT Carcinoma
(pulmonary; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)
IT Antitumor agents
Cell nucleus

Drug design
Drug targets
Human
Melanoma
Mitochondria
Neoplasm

Structure-activity relationship

(targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)

IT DNA

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)

IT Cytotoxicity

(targeting of furamidine analogs to the nucleus or mitochondria of tumor cells in relation to cytotoxicity)

IT 173420-56-9, DB 181

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DB 181; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)

IT 179118-17-3, DB 226

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DB 226; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)

IT 192525-51-2, DB 244

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DB 244; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)

IT 73819-26-8, DB 75

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(DB 75; targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)

IT 192525-52-3, DB 249 199919-00-1, DB 417 347190-99-2, DB 667

347191-02-0, DB 613 442842-45-7, DB 673 541520-55-2,
DB 569

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)

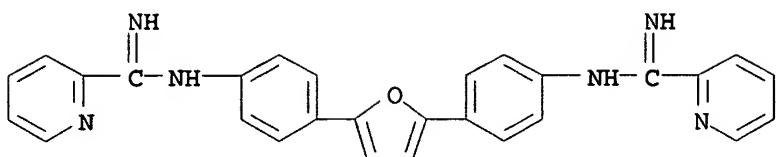
IT 347190-99-2, DB 667 347191-02-0, DB 613

442842-45-7, DB 673

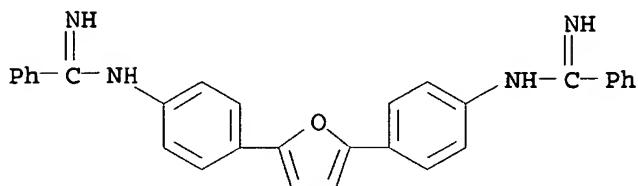
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(targeting of furamidine analogs to the nucleus or mitochondria of tumor cells as a function of structure and DNA binding)

RN 347190-99-2 HCAPLUS

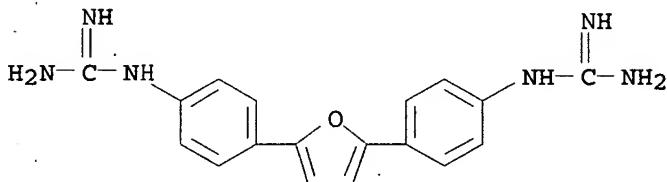
CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylidene-4,1-phenylene)bis- (9CI)
(CA INDEX NAME)



RN 347191-02-0 HCAPLUS

CN Benzenecarboximidamide, N,N''-(2,5-furandiylidene-4,1-phenylene)bis- (9CI)
(CA INDEX NAME)

RN 442842-45-7 HCAPLUS

CN Guanidine, N,N''-(2,5-furandiylidene-4,1-phenylene)bis- (9CI) (CA INDEX
NAME)RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:555455 HCAPLUS

DN 137:109199

TI Preparation of bis(amidino- and guanidinophenyl)furans and analogs as
microbicidesIN Boykin, David; Tidwell, Richard R.; Wilson, W. David; Perfect, John R.;
Stephens, Chad E.PA University of North Carolina at Chapel Hill, USA; Georgia State University
Research Foundation, Inc.

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002057224	A2	20020725	WO 2001-US47238	20011106
	WO 2002057224	A3	20030306		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

applicants

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
 UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002156098	A1	20021024	US 2001-985590	20011105
US 6706754 *	B2	20040316		
CA 2425135	AA	20020725	CA 2001-2425135	20011106
US 2003083362	A1	20030501	US 2001-8535	20011106
US 6737440	B2	20040518		
EP 1337510	A2	20030827	EP 2001-994174	20011106
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004517889	T2	20040617	JP 2002-557905	20011106
US 2004235927	A1	20041125	US 2004-791425	20040302
PRAI US 2000-246244P	P	20001106		
US 2000-246330P	P	20001107		
US 2001-288428P	P	20010504		
US 2001-8535	A3	20011106		
WO 2001-US47238	W	20011106		

OS MARPAT 137:109199

AB Z[Z1NHC(:NR5)R6]2 [I; R5 = H, alkyl, aryl; R6 = H, alkyl, aryl, NR7R8; R7,R8 = H, alkyl, aryl; Z = furan-, thiophene-, or pyrrole-2,5-diyl; Z1 = (un)substituted 1,4-phenylene] were prepared. Thus, 2,5-bis(tributylstannyl)furan was condensed with 2-bromo-5-nitrotoluene and the product reduced to give 2,5-bis(4-amino-2-methylphenyl)furan. Similarly prepared 2,5-bis(4-aminophenyl)furan was amidated by BzCl and the product converted in 2 steps to I (R5 = H, R6 = Ph, Z = furan-2,5-diyl, Z1 = 1,4-phenylene). Data for biol. activity of I were given.

IC ICM C07D

CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
 Section cross-reference(s): 1

ST amideinophenylfuran prepn microbicide; bactericide amideinophenylfuran prepn; fungicide amideinophenylfuran prepn; protozoacide amideinophenylfuran prepn

IT Aspergillus
 Candida albicans
 Cryptococcus neoformans
 Cryptosporidium parvum
 Fusarium solani
 Giardia lamblia
 Mycobacterium tuberculosis
 Plasmodium (malarial genus)
 Pneumocystis carinii
 Toxoplasma gondii
 Trypanosoma
 (infection; treatment; preparation of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

IT Antibacterial agents
 Fungicides
 Human
 Protozoacides
 (preparation of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

IT 347190-93-6P 347190-94-7P 347190-95-8P
 347190-96-9P 347190-97-0P 347190-98-1P
 347190-99-2P 347191-00-8P 347191-02-0P
 347191-03-1P 347191-04-2P 347191-05-3P

347191-06-4P 347191-07-5P 347191-08-6P
 347191-09-7P 347191-11-1P 347191-14-4P
 347191-15-5P 347191-16-6P 347191-17-7P
 347191-18-8P 347191-19-9P 347191-20-2P
 347191-21-3P 423165-09-7P 423165-12-2P
 423165-54-2P 443797-77-1P 443797-78-2P
 443797-79-3P 443797-80-6P 443797-81-7P
 443797-83-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

IT 98-88-4, Benzoyl chloride 100-70-9, 2-Cyanopyridine 874-60-2,
 4-Methylbenzoyl chloride 939-26-4, 2-(Bromomethyl)naphthalene
 1620-77-5, 2-Cyano-5-methylpyridine 7149-70-4, 2-Bromo-5-nitrotoluene
 193361-76-1, 2,5-Bis(tributylstannyl)furan

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

IT 5346-38-3P, 2-Thiocarbamoylpyridine 53715-17-6P 56297-30-4P,
 2,5-Bis(4-nitrophenyl)furan 251577-90-9P 334017-98-0P 347190-78-7P
 347190-79-8P 347190-80-1P 347190-81-2P 347190-82-3P 347190-83-4P
 347190-84-5P 347190-85-6P 347190-86-7P 347190-87-8P
 347190-88-9P 347190-89-0P 347190-90-3P
 347190-91-4P 347190-92-5P 347191-01-9P 347191-10-0P
 347191-22-4P 347191-23-5P 347191-24-6P 347191-25-7P 443797-82-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

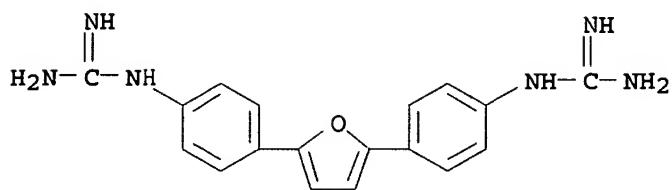
IT 347190-93-6P 347190-94-7P 347190-95-8P
 347190-96-9P 347190-97-0P 347190-98-1P
 347190-99-2P 347191-00-8P 347191-02-0P
 347191-03-1P 347191-04-2P 347191-05-3P
 347191-06-4P 347191-07-5P 347191-08-6P
 347191-09-7P 347191-11-1P 347191-14-4P
 347191-15-5P 347191-16-6P 347191-17-7P
 347191-18-8P 347191-19-9P 347191-20-2P
 347191-21-3P 423165-09-7P 423165-12-2P
 423165-54-2P 443797-77-1P 443797-78-2P
 443797-79-3P 443797-80-6P 443797-81-7P
 443797-83-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of bis(amidino- and guanidinophenyl)furans and analogs as microbicides)

RN 347190-93-6 HCPLUS

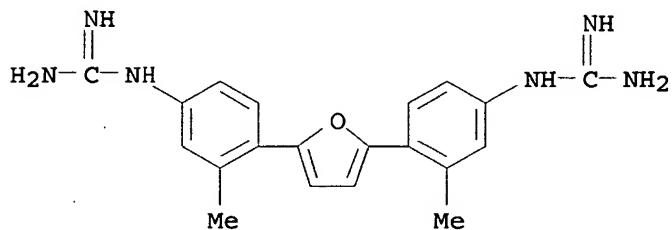
CN Guanidine, N,N''-(2,5-furandiylidi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-94-7 HCPLUS

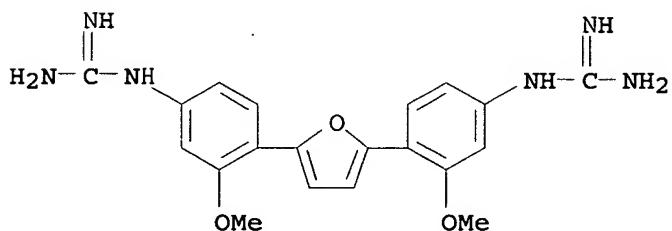
CN Guanidine, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-95-8 HCPLUS

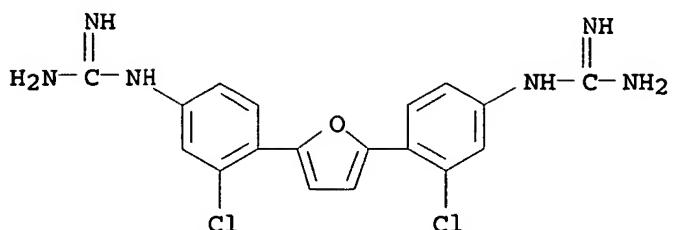
CN Guanidine, N,N'-(2,5-furandiylbis(3-methoxy-4,1-phenylene))bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-96-9 HCPLUS

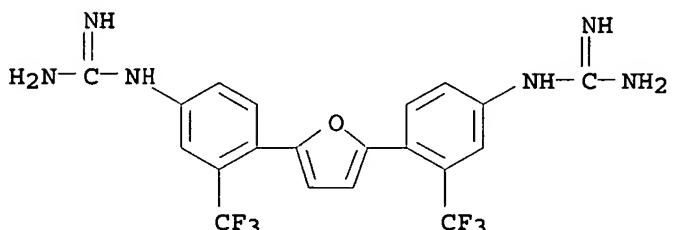
CN Guanidine, N,N'-(2,5-furandiylbis(3-chloro-4,1-phenylene))bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-97-0 HCPLUS

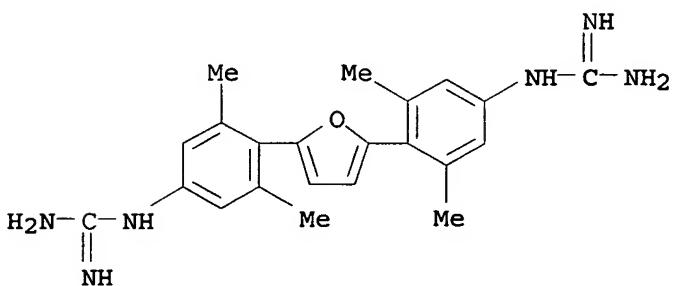
CN Guanidine, N,N'-(2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene])bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-98-1 HCPLUS

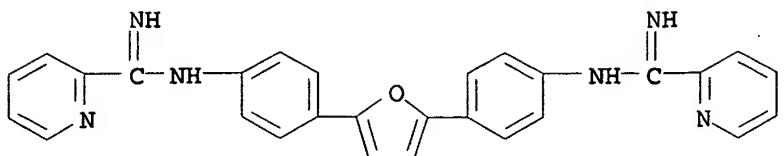
CN Guanidine, N,N'-(2,5-furandiylbis(3,5-dimethyl-4,1-phenylene))bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

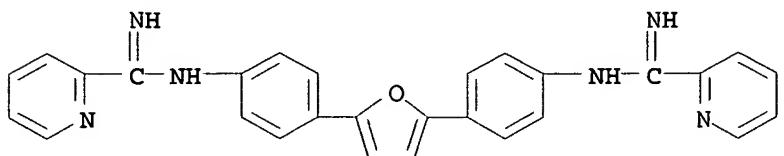
RN 347190-99-2 HCPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiyl-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



RN 347191-00-8 HCPLUS

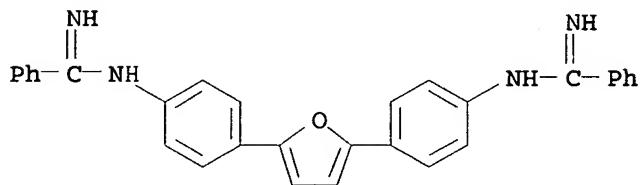
CN 2-Pyridinecarboximidamide, N,N''-(2,5-furandiylidene-4,1-phenylene)bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



● 7/2 HCl

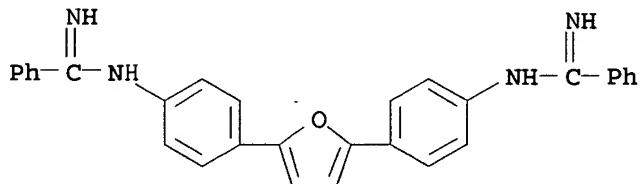
RN 347191-02-0 HCPLUS

CN Benzenecarboximidamide, N,N''-(2,5-furandiylidene-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



RN 347191-03-1 HCPLUS

CN Benzenecarboximidamide, N,N''-(2,5-furandiylidene-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)

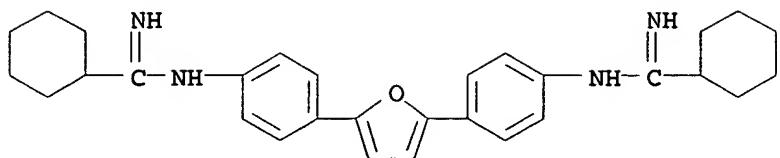


● 2 HCl

RN 347191-04-2 HCPLUS

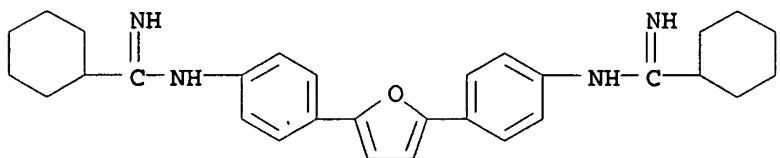
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiylidene-4,1-phenylene)bis-

(9CI) (CA INDEX NAME)



RN 347191-05-3 HCPLUS

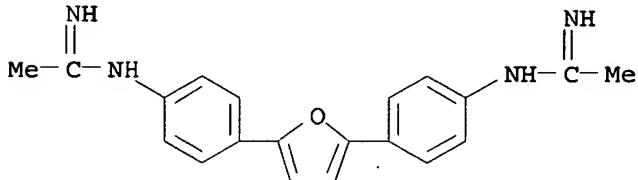
CN Cyclohexanecarboximidamide, N,N'-(2,5-furandiylid-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347191-06-4 HCPLUS

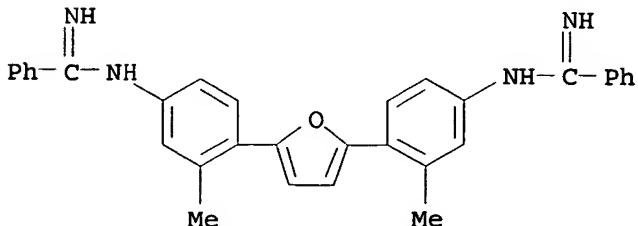
CN Ethanimidamide, N,N'-(2,5-furandiylid-4,1-phenylene)bis-, dihydروبromide (9CI) (CA INDEX NAME)



●2 HBr

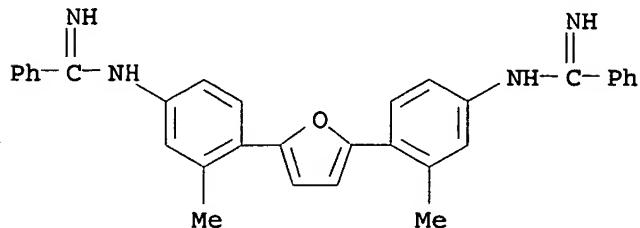
RN 347191-07-5 HCPLUS

CN Benzenecarboximidamide, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



RN 347191-08-6 HCAPLUS

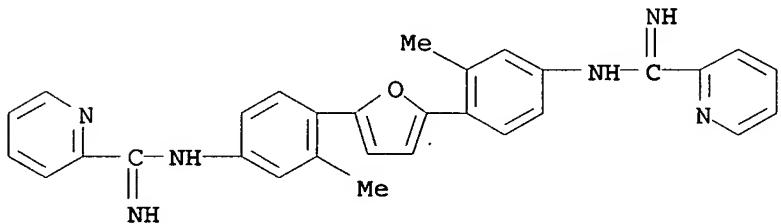
CN Benzenecarboximidamide, N,N'-(2,5-furandiylibis(3-methyl-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

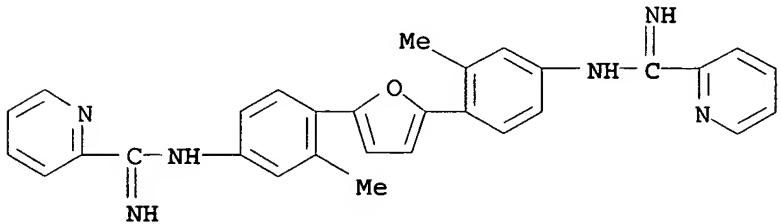
RN 347191-09-7 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



RN 347191-11-1 HCAPLUS

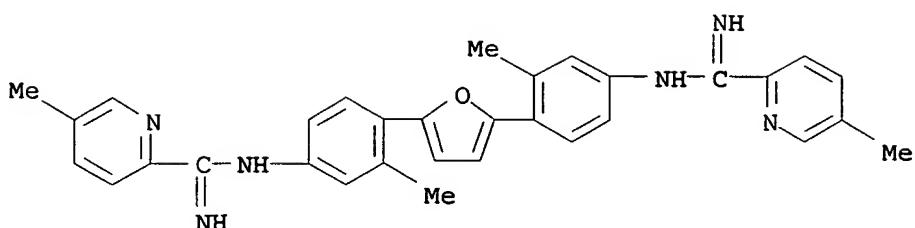
CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



● 7/2 HCl

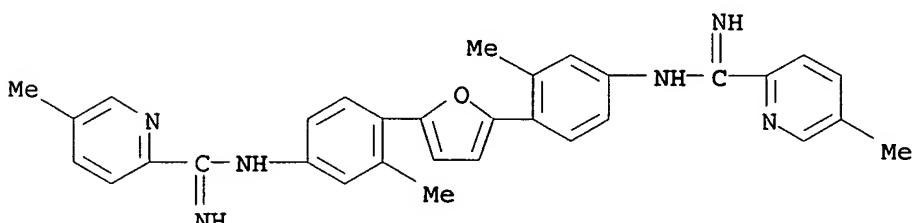
RN 347191-14-4 HCPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis[5-methyl-(9CI) (CA INDEX NAME)



RN 347191-15-5 HCPLUS

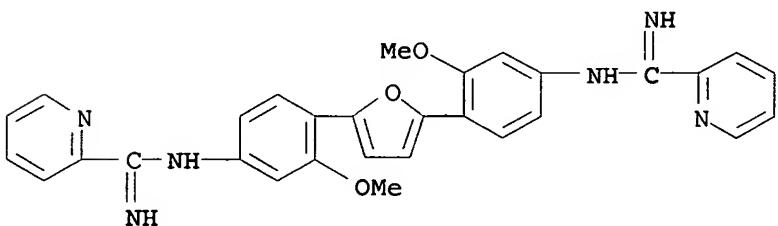
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl-, hydrochloride (4:13) (9CI) (CA INDEX NAME)



●13/4 HCl

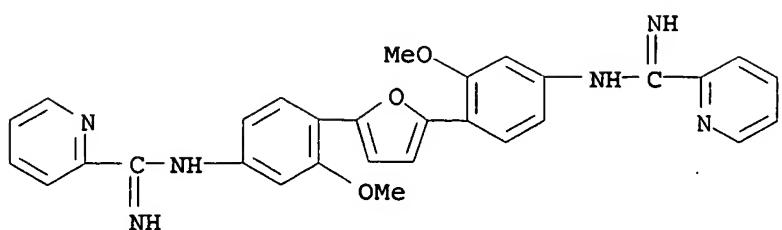
RN 347191-16-6 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 347191-17-7 HCPLUS

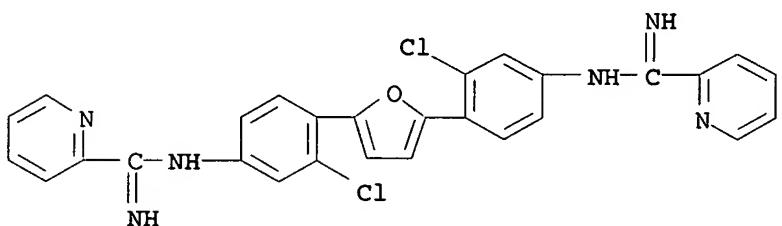
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

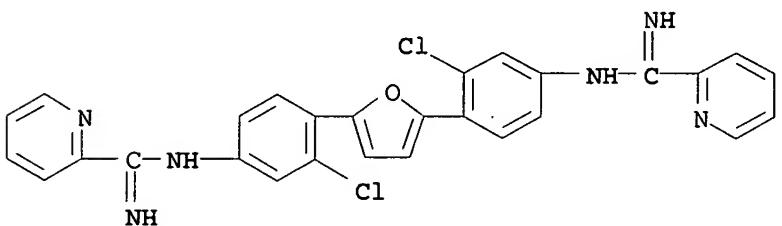
RN 347191-18-8 HCPLUS

CN 2-Pyridinecarboximidamide, N,N'-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 347191-19-9 HCPLUS

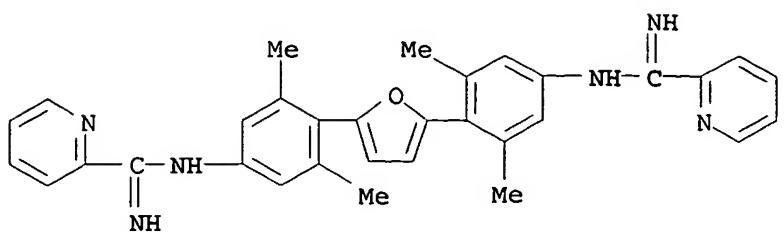
CN 2-Pyridinecarboximidamide, N,N'-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

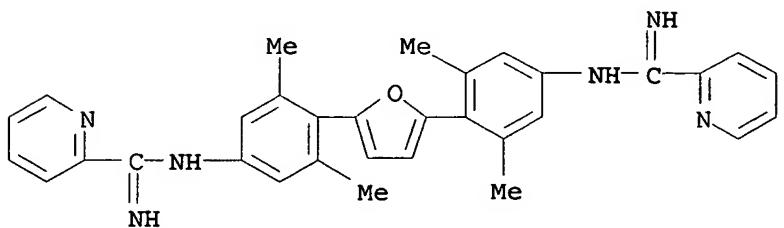
RN 347191-20-2 HCPLUS

CN 2-Pyridinecarboximidamide, N,N'-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 347191-21-3 HCPLUS

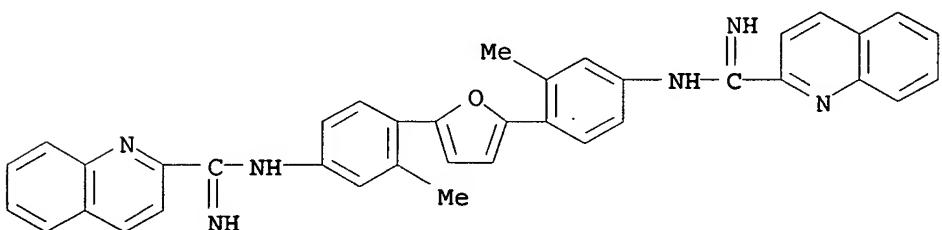
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, hydrochloride (4:15) (9CI) (CA INDEX NAME)



●15/4 HCl

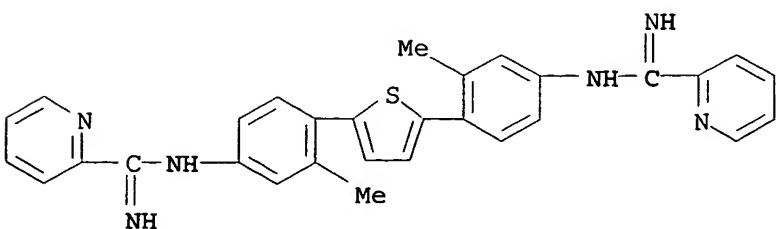
RN 423165-09-7 HCPLUS

CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



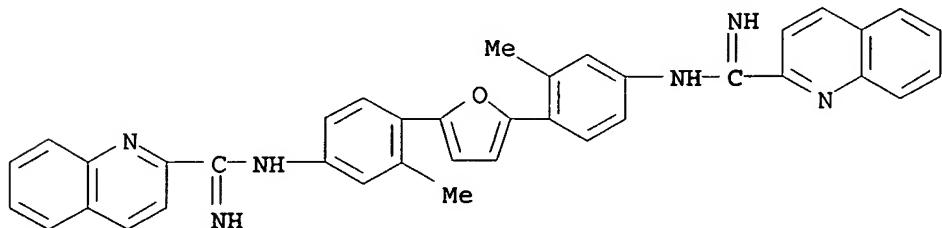
RN 423165-12-2 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-thiophenediylylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 423165-54-2 HCPLUS

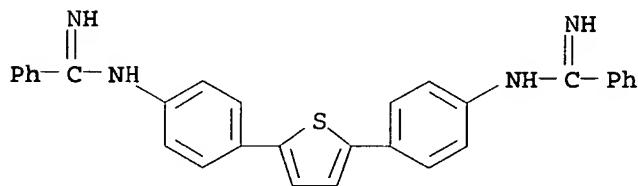
CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

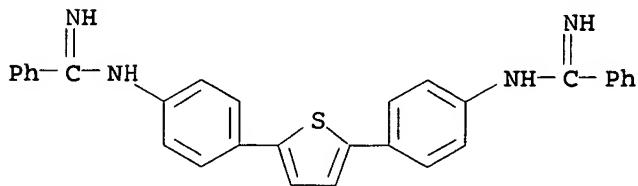
RN 443797-77-1 HCPLUS

CN Benzenecarboximidamide, N,N''-(2,5-thiophenediyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



RN 443797-78-2 HCPLUS

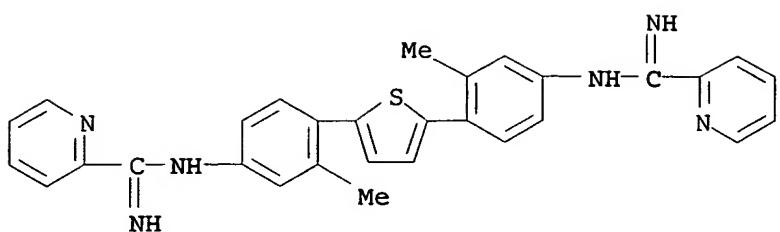
CN Benzenecarboximidamide, N,N''-(2,5-thiophenediyldi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

RN 443797-79-3 HCPLUS

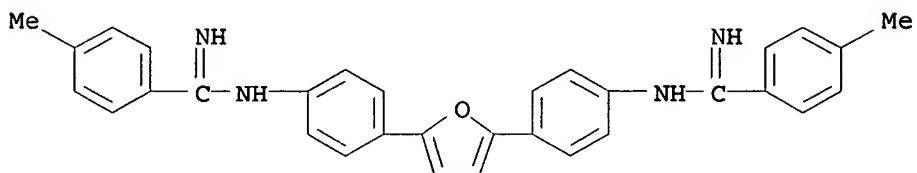
CN 2-Pyridinecarboximidamide, N,N''-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis-, hydrochloride (2:5) (9CI) (CA INDEX NAME)



● 5/2 HCl

RN 443797-80-6 HCPLUS

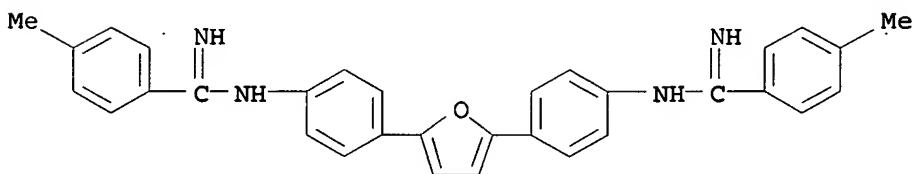
CN Benzenecarboximidamide, N,N'-(2,5-furandiylidene)bis[4-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

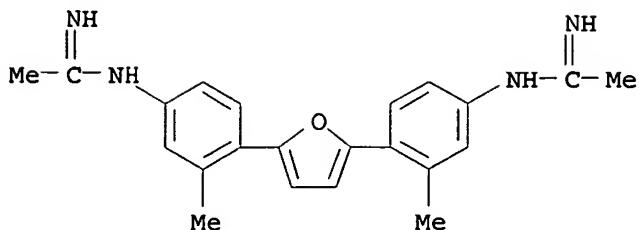
RN 443797-81-7 HCPLUS

CN Benzenecarboximidamide, N,N'-(2,5-furandiylidene)bis[4-methyl- (9CI) (CA INDEX NAME)



RN 443797-83-9 HCPLUS

CN Ethanimidamide, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis-, dihydrobromide (9CI) (CA INDEX NAME)



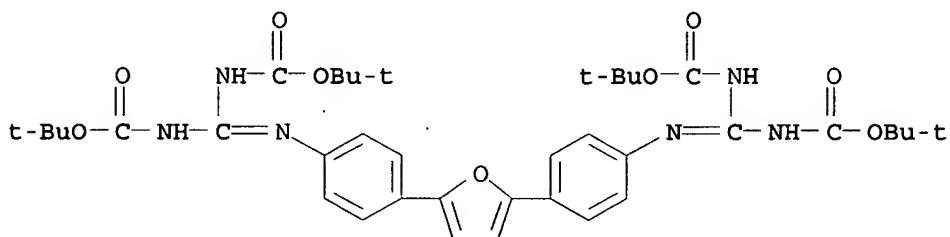
● 2 HBr

IT 347190-87-8P 347190-88-9P 347190-89-0P
347190-90-3P 347190-91-4P 347190-92-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation of bis(amidino- and guanidinophenyl)furan and analogs as
microbicides)

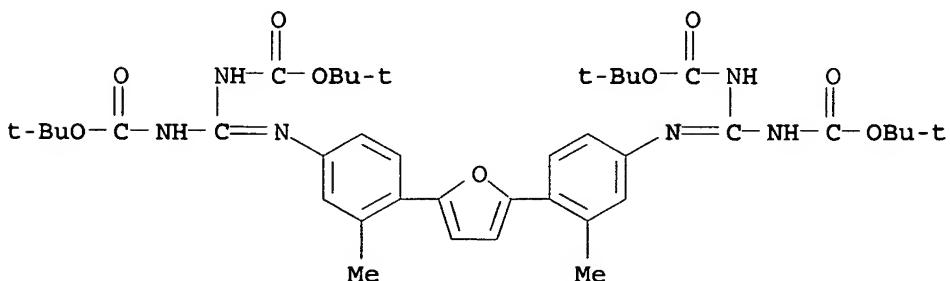
RN 347190-87-8 HCPLUS

CN Carbamic acid, [2,5-furandiylbis(4,1-phenylenenitrilomethanetetracyl)]tetra
kis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



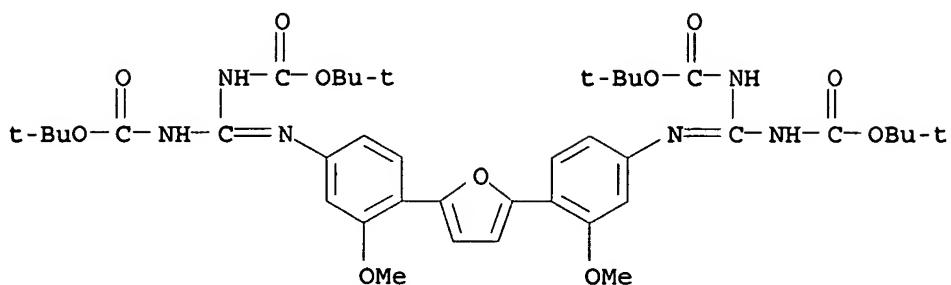
RN 347190-88-9 HCPLUS

CN Carbamic acid, [2,5-furandiylbis[(3-methyl-4,1-phenylene)nitrilomethanetetracyl]]tetra- kis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



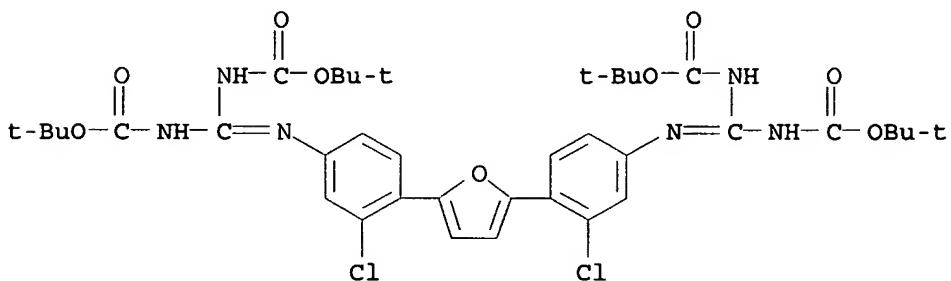
RN 347190-89-0 HCPLUS

CN Carbamic acid, [2,5-furandiylbis[(3-methoxy-4,1-phenylene)nitrilomethanetetracyl]]tetra- kis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



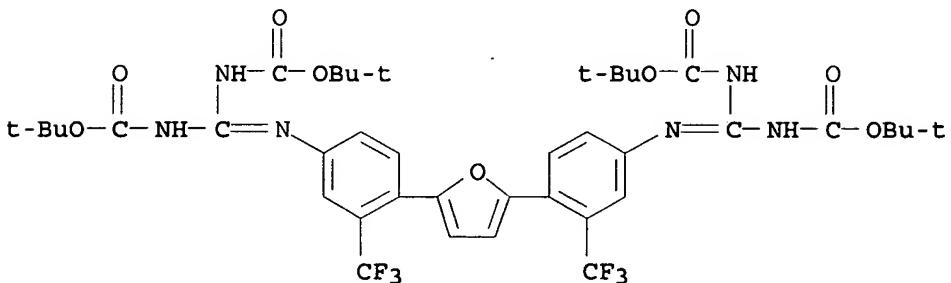
RN 347190-90-3 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[(3-chloro-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



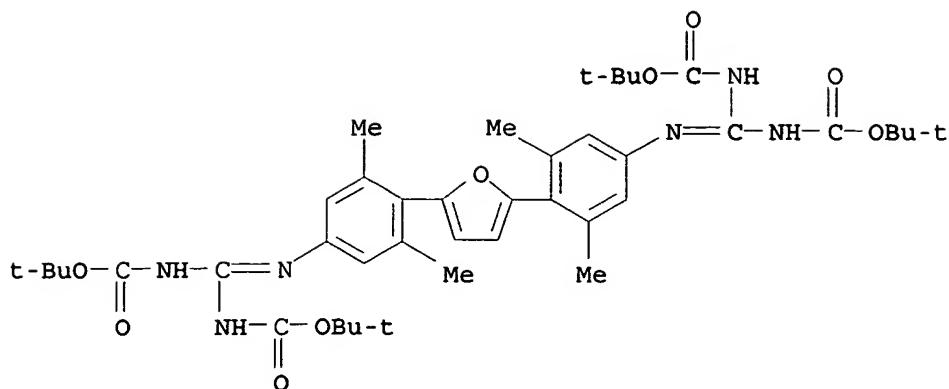
RN 347190-91-4 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[[3-(trifluoromethyl)-4,1-phenylene]nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



RN 347190-92-5 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[(3,5-dimethyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



L12 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:539483 HCAPLUS

DN 137:103864

TI Compounds useful for the treatment of bovine viral diarrhea virus and hepatitis C virus infections

IN Boykin, David; Tidwell, Richard R.; Stringfellow, David; Brock, Kenny; Stephens, Chad E.; Kumar, Arvind; Wilson, W. David; Givens, Daniel; Dykstra, Christine

PA University of North Carolina At Chapel Hill, USA; Georgia State University Research Foundation; Auburn University

SO PCT Int. Appl., 68 pp.
CODEN: PIXXD2

DT Patent

LA English

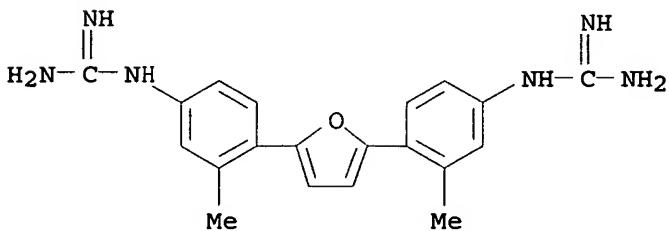
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002055025	A2	20020718	WO 2002-US787	20020111
	WO 2002055025	A3	20040115		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2433070	AA	20020718	CA 2002-2433070	20020111
	US 2003199521	A1	20031023	US 2002-44315	20020111
	EP 1399163	A2	20040324	EP 2002-705743	20020111
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004525881	T2	20040826	JP 2002-555762	20020111
	US 2006063931	A1	20060323	US 2005-262427	20051028
PRAI	US 2001-261654P	P	20010113		
	US 2002-44315	B1	20020111		
	WO 2002-US787	W	20020111		
	US 2004-796657	A3	20040309		
OS	MARPAT	137:103864			
AB	The invention relates to novel compds. and methods that are useful in				

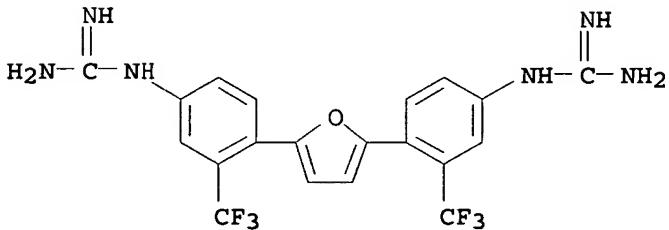
treating members of the Flaviviridae family of viruses. Compds. disclosed in the invention are shown to be effective against bovine viral diarrhea virus and hepatitis C virus infection.

IC ICM A61K
 CC 1-5 (Pharmacology)
 Section cross-reference(s): 28
 ST antiviral cattle diarrhea virus hepatitis C infection
 IT Antiviral agents
 Bos taurus
 Bovine diarrhea virus
 Embryo, animal
 Flaviviridae
 Hepatitis C virus
 Human
 (compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
 IT Drug delivery systems
 (injections, i.v.; compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
 IT Drug delivery systems
 (oral; compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
 IT 423165-10-0 423165-11-1 423165-30-4
 423165-31-5 433735-86-5 433735-89-8 433735-90-1
 442842-40-2 442842-41-3 442842-42-4 442842-43-5 442842-44-6
 442842-45-7 442842-46-8 442842-47-9 442842-48-0
 442842-49-1 442842-50-4
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
 IT 95-54-5, 1,2-Phenylenediamine, reactions 7147-77-5, 5-(4-Nitrophenyl)furfural 7149-70-4, 2-Bromo-5-nitrotoluene 52130-32-2, 5-(4-Cyanophenyl)-2-furancarboxaldehyde 68662-17-9 68827-43-0, 4-Amidino-1,2-phenylenediamine 148344-30-3 193361-76-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
 IT 53715-17-6P 56297-30-4P 251577-90-9P 332360-11-9P 347190-78-7P
 347190-79-8P 347190-80-1P 347190-81-2P 347190-82-3P 347190-83-4P
 347190-84-5P 347190-85-6P 347190-86-7P 347190-87-8P
 347190-88-9P 347190-89-0P 347190-90-3P
 347190-91-4P 347190-92-5P 442842-52-6P 442842-54-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
 IT 347190-93-6P 347190-94-7P 347190-95-8P
 347190-96-9P 347190-97-0P 347190-98-1P
 442842-51-5P 442842-53-7P 442842-55-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
 IT 9003-99-0, Peroxidase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (in immunoassay; compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)
 IT 443408-63-7 443408-64-8 443408-65-9
 RL: PRP (Properties)
 (unclaimed nucleotide sequence; compds. useful for the treatment of

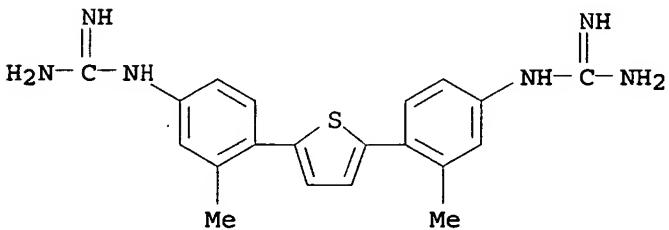
bovine viral diarrhea virus and hepatitis C virus infections)
 IT 423165-10-0 423165-11-1 423165-30-4
 423165-31-5 442842-45-7 442842-48-0
 442842-49-1 442842-50-4
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (compds. for treatment of bovine viral diarrhea virus infection and
 hepatitis C virus infection)
 RN 423165-10-0 HCAPLUS
 CN Guanidine, N,N'-'-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI)
 (CA INDEX NAME)



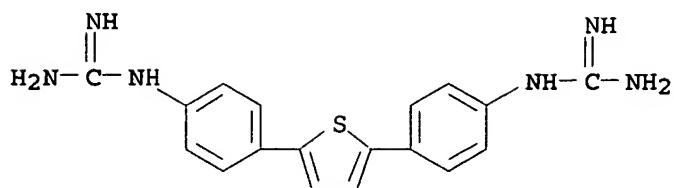
RN 423165-11-1 HCAPLUS
 CN Guanidine, N,N'-'-[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



RN 423165-30-4 HCAPLUS
 CN Guanidine, N,N'-'-[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis- (9CI)
 (CA INDEX NAME)

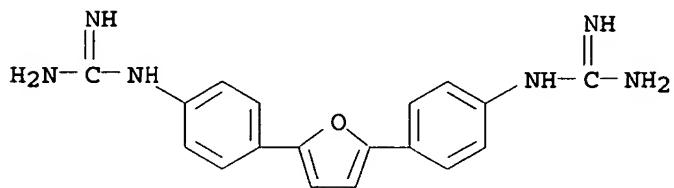


RN 423165-31-5 HCAPLUS
 CN Guanidine, N,N'-'-(2,5-thiophenediyldi-4,1-phenylene)bis- (9CI) (CA INDEX
 NAME)



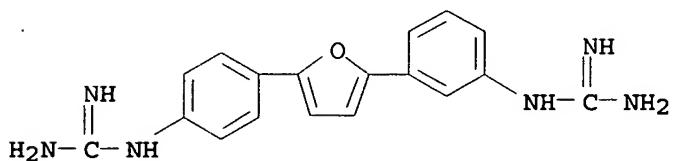
RN 442842-45-7 HCAPLUS

CN Guanidine, N,N''-(2,5-furandiyl-di-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



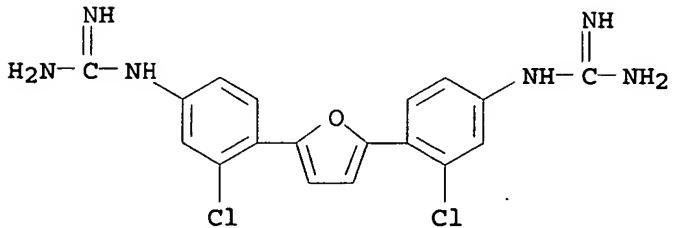
RN 442842-48-0 HCAPLUS

CN Guanidine, [3-[5-[4-[(aminoiminomethyl)aminophenyl]-2-furanyl]phenyl]- (9CI) (CA INDEX NAME)



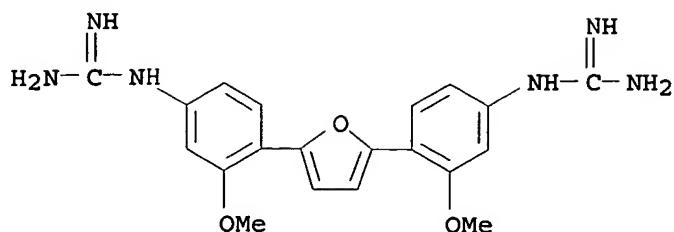
RN 442842-49-1 HCAPLUS

CN Guanidine, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 442842-50-4 HCAPLUS

CN Guanidine, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



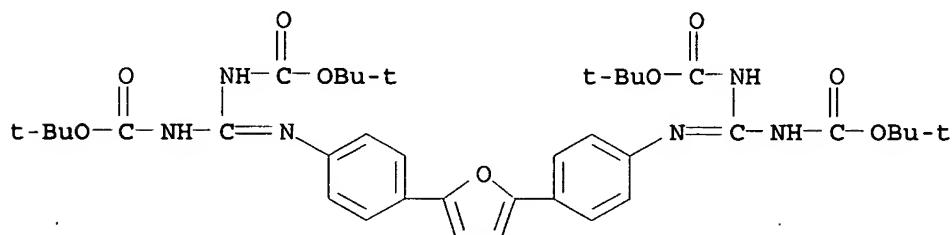
IT 347190-87-8P 347190-88-9P 347190-89-0P
 347190-90-3P 347190-91-4P 347190-92-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)

(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)

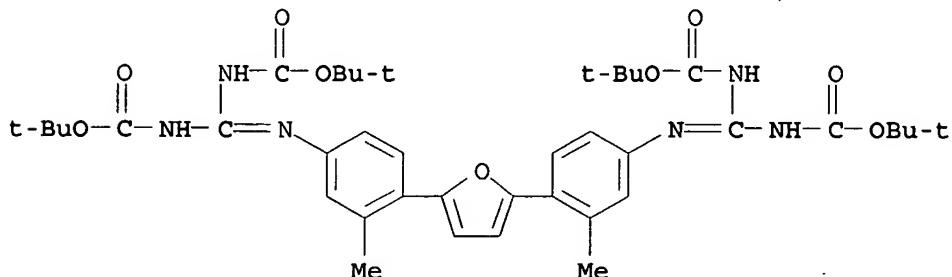
RN 347190-87-8 HCPLUS

CN Carbamic acid, [2,5-furandiylbis(4,1-phenylenenitrilotetraethyl)]tetraakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



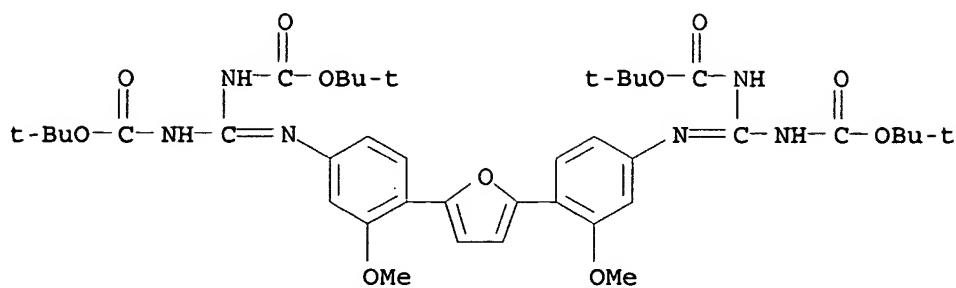
RN 347190-88-9 HCPLUS

CN Carbamic acid, [2,5-furandiylbis[(3-methyl-4,1-phenylene)nitrilotetraethyl]]tetraakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



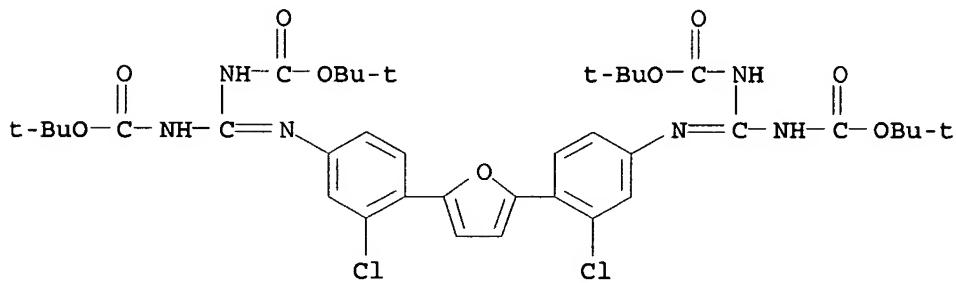
RN 347190-89-0 HCPLUS

CN Carbamic acid, [2,5-furandiylbis[(3-methoxy-4,1-phenylene)nitrilotetraethyl]]tetraakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



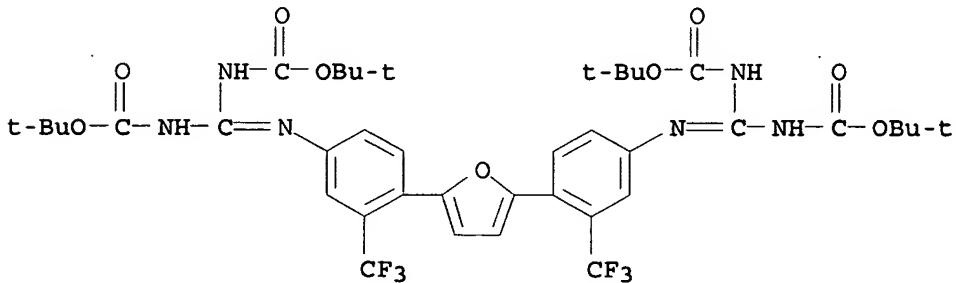
RN 347190-90-3 HCPLUS

CN Carbamic acid, [2,5-furandiylbis[(3-chloro-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



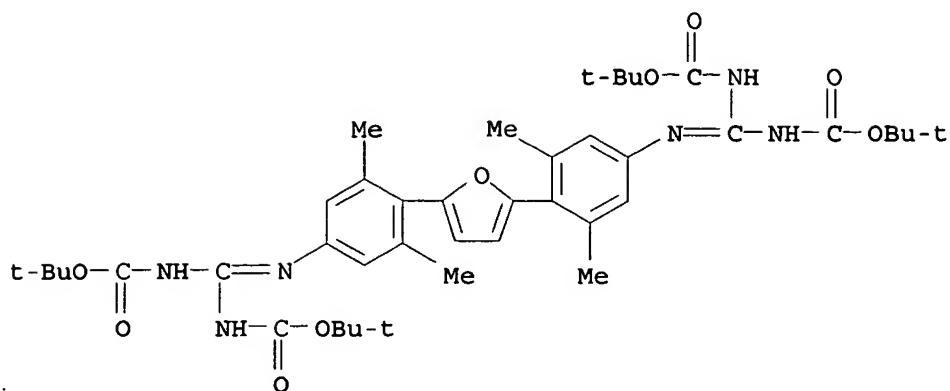
RN 347190-91-4 HCPLUS

CN Carbamic acid, [2,5-furandiylbis[[3-(trifluoromethyl)-4,1-phenylene]nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



RN 347190-92-5 HCPLUS

CN Carbamic acid, [2,5-furandiylbis[(3,5-dimethyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)

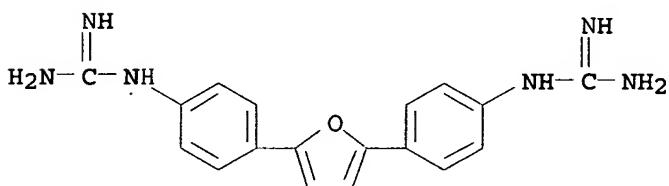


IT 347190-93-6P 347190-94-7P 347190-95-8P
347190-96-9P 347190-97-0P 347190-98-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(compds. for treatment of bovine viral diarrhea virus infection and hepatitis C virus infection)

RN 347190-93-6 HCPLUS

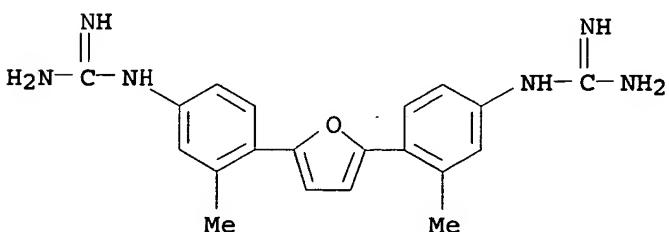
CN Guanidine, N,N''-(2,5-furandiylbi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-94-7 HCPLUS

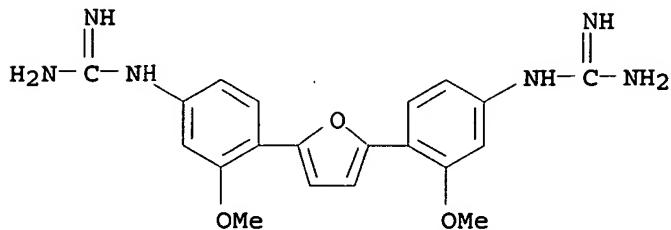
CN Guanidine, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-95-8 HCPLUS

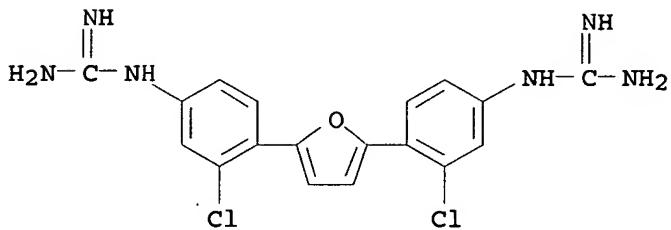
CN Guanidine, N,N'--[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-,
dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-96-9 HCPLUS

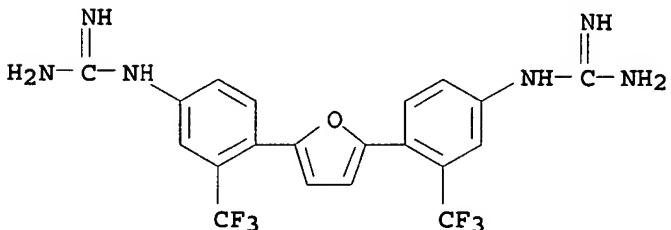
CN Guanidine, N,N'--[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-,
dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-97-0 HCPLUS

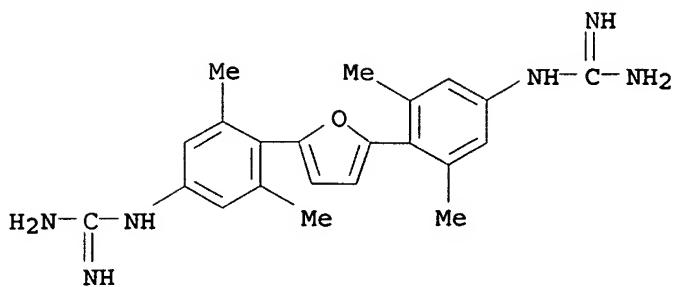
CN Guanidine, N,N'--[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis-,
dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-98-1 HCPLUS

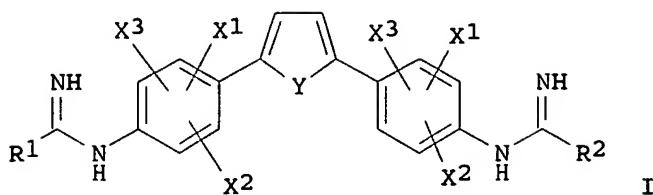
CN Guanidine, N,N'--[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-,
dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

L12 ANSWER 20 OF 21 HCPLUS COPYRIGHT 2006 ACS on STN
 AN 2002:353451 HCPLUS
 DN 136:363813
 TI Reversed amidines and methods of using them for treating, preventing, or inhibiting leishmaniasis
 IN Werbovetz, Karl A.; Brendle, James J.; Boykin, David W.; Stephens, Chad E.
 PA U.S. Army Medical Research and Material Command, USA
 SO PCT Int. Appl., 67 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002036588	A2	20020510	WO 2001-US42905	20011105
	WO 2002036588	A3	20030828		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
	AU 2002032400	A5	20020515	AU 2002-32400	20011105
	US 2002156098	A1	20021024	US 2001-985590	20011105
	<u>US 6706754</u>	B2	20040316		
PRAI	US 2000-246277P	P	20001106		
	US 2000-246330P	P	20001107		
	US 2001-288428P	P	20010504		
	US 2000-246244P	P	20001106		
	WO 2001-US42905	W	20011105		
OS	MARPAT	136:363813			
GI					



AB Methods are disclosed for treating, preventing or inhibiting leishmaniasis in a subject which comprise administering to the subject a therapeutically effective amount of at least one compound I (Y = heteroatom; R1, R2 = H, alkyl, cycloalkyl, heterocycloalkyl, aryl, amino, heteroaryl; X1, X2, X3 = H, alkyl, alkoxy, halo, amino, alkylamino, dialkylamino, acylamino, alkylthio, sulfonyl, cyano, carboxy, alkoxy carbonyl, carbamoyl).

IC ICM C07D405-00

CC 1-5 (Pharmacology)

ST heterocyclic deriv reversed amidine leishmaniasis treatment; furan deriv reversed amidine leishmaniasis treatment; thiophene deriv reversed amidine leishmaniasis treatment

IT Infection
(leishmaniasis, cutaneous or mucocutaneous or visceral; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT Protozoacides
(leishmanicides; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT Drug delivery systems

Leishmania

Leishmania donovani

Leishmania mexicana

Parasiticides
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT Amidines

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 7035-69-0P 53715-17-6P 56297-30-4P 57279-70-6P 101793-47-9P
103966-66-1P 251577-90-9P 347190-78-7P 347190-79-8P 347190-80-1P
347190-81-2P 347190-82-3P 347190-83-4P 347190-84-5P 347190-86-7P
423165-32-6P 423165-34-8P 423165-35-9P 423165-36-0P 423165-37-1P
423165-39-3P 423165-42-8P 423165-48-4P 423165-49-5P 423165-50-8P
423165-51-9P 423165-52-0P 423165-60-0P 423165-63-3P
423165-65-5P 423165-67-7P 423165-70-2P
423165-73-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 75-30-9, 2-Iodo propane 98-88-4, Benzoyl chloride 367-67-9,
2-Bromo-5-nitrobenzotrifluoride 586-78-7, 4-Bromonitrobenzene
610-38-8, 4-Bromo-1,2-dinitrobenzene 6345-68-2 7149-70-4,
2-Bromo-5-nitrotoluene 29682-39-1, 1-Bromo-2-chloro-4-nitrobenzene
52427-05-1, 2-Bromo-5-nitrophenol 53906-84-6 70010-49-0 77337-82-7,
2-Bromo-5-nitroanisole 145483-63-2 180002-24-8 193361-76-1
215175-55-6 347191-10-0 347191-22-4 347191-23-5 347191-24-6
423165-33-7 423165-53-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 347191-02-0P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 347190-99-2P 347191-03-1P 347191-04-2P
 347191-07-5P 347191-09-7P 347191-14-4P
 347191-16-6P 347191-18-8P 347191-20-2P
 423165-06-4P 423165-09-7P 423165-22-4P
 423165-25-7P 423165-28-0P 423165-29-1P
 423165-31-5P 423165-62-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 423165-10-0 423165-11-1 423165-12-2
 423165-14-4 423165-15-5 423165-16-6 423165-17-7
 423165-18-8 423165-19-9 423165-20-2
 423165-21-3 423165-23-5 423165-24-6
 423165-26-8 423165-27-9 423165-30-4
 423165-75-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 347190-85-6P 347191-00-8P 347191-05-3P
 347191-08-6P 347191-11-1P 347191-15-5P
 347191-17-7P 347191-19-9P 347191-21-3P
 423165-54-2P 423165-55-3P 423165-56-4P
 423165-57-5P 423165-58-6P 423165-59-7P
 423165-61-1P 423165-64-4P 423165-66-6P
 423165-69-9P 423165-71-3P 423165-74-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (reversed amidines for treating, preventing, or inhibiting leishmaniasis)

IT 100-33-4, Pentamidine 133-51-7, Meglumine antimoniate 1397-89-3,
 Amphotericin B 6284-40-8D, Meglumine, antimonite salts 7542-37-2,
 Paromomycin 16037-91-5, Sodium stibogluconate 58066-85-6, Miltefosine
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

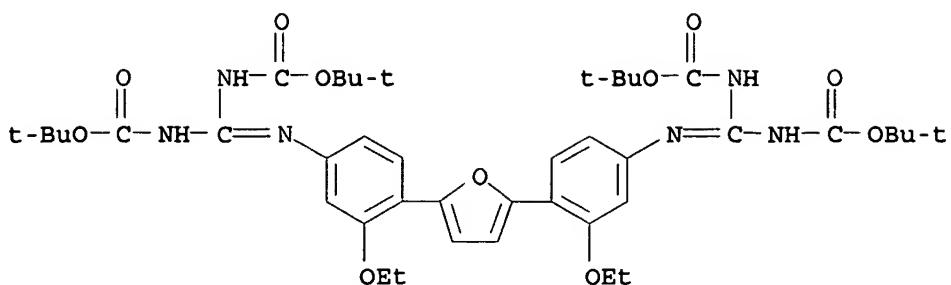
(reversed amidines for treating, preventing, or inhibiting leishmaniasis, and use with other agents)

IT 423165-60-0P 423165-63-3P 423165-65-5P
 423165-67-7P 423165-70-2P 423165-73-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and reaction; reversed amidines for treating, preventing, or inhibiting leishmaniasis)

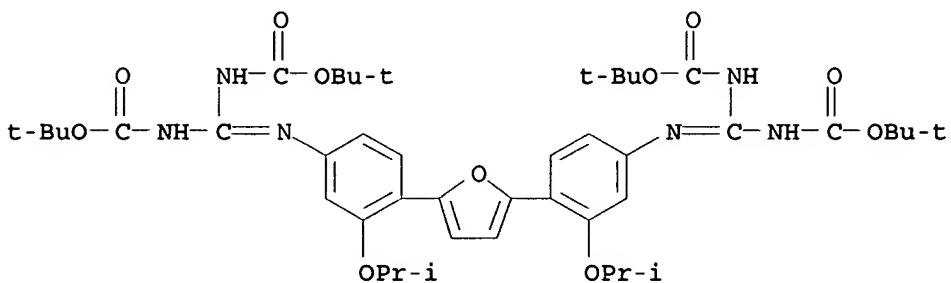
RN 423165-60-0 HCPLUS

CN Carbamic acid, [2,5-furandiylibis[(3-ethoxy-4,1-phenylene)nitrilomethanetetrail]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



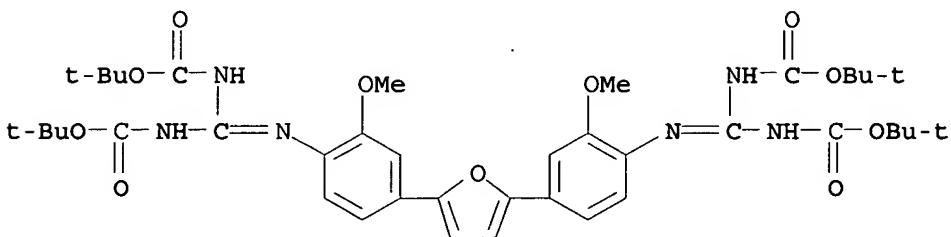
RN 423165-63-3 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[[3-(1-methylethoxy)-4,1-phenylene]nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



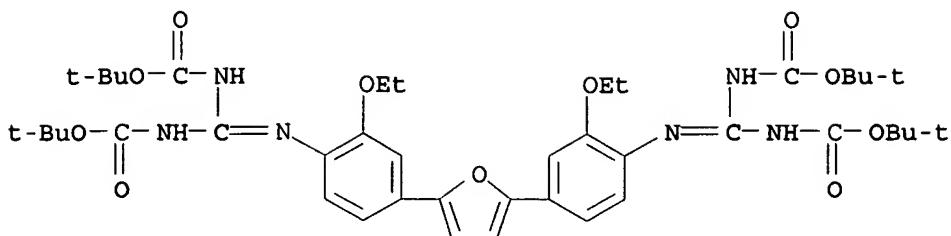
RN 423165-65-5 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[(2-methoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



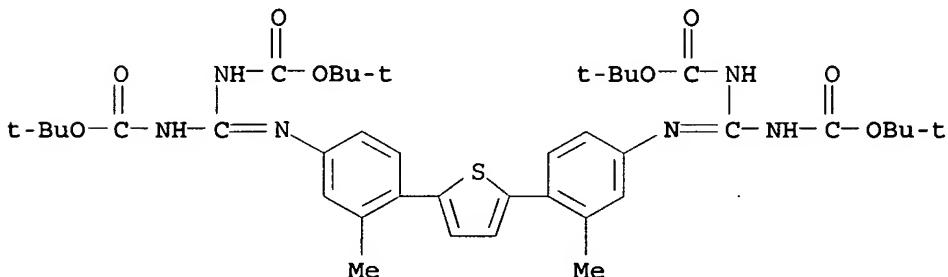
RN 423165-67-7 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[(2-ethoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



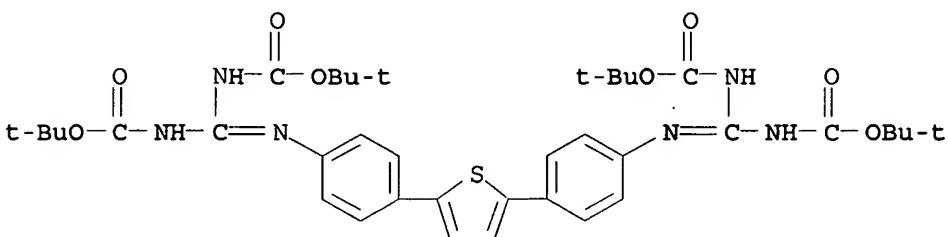
RN 423165-70-2 HCPLUS

CN Carbamic acid, [2,5-thiophenediylbis[(3-methyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



RN 423165-73-5 HCPLUS

CN Carbamic acid, [2,5-thiophenediylbis(4,1-phenylenenitrilomethanetetrayl)]tetrakis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)

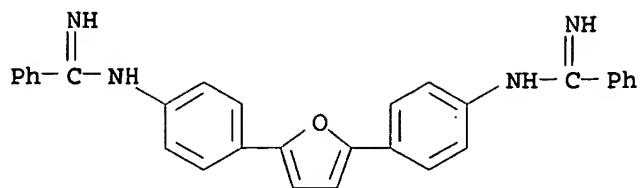


IT 347191-02-0P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (reversed amidines for treating, preventing, or inhibiting leishmaniasis)

RN 347191-02-0 HCPLUS

CN Benzenecarboximidamide, N,N''-(2,5-furandiyl-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



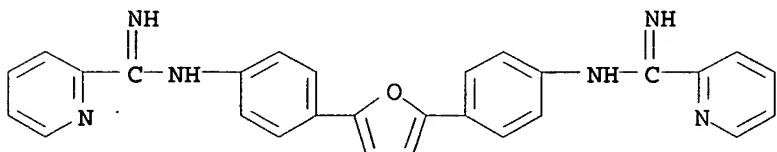
IT 347190-99-2P 347191-03-1P 347191-04-2P
 347191-07-5P 347191-09-7P 347191-14-4P
 347191-16-6P 347191-18-8P 347191-20-2P
 423165-06-4P 423165-09-7P 423165-22-4P
 423165-25-7P 423165-28-0P 423165-29-1P
 423165-31-5P 423165-62-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(reversed amidines for treating, preventing, or inhibiting leishmaniasis)

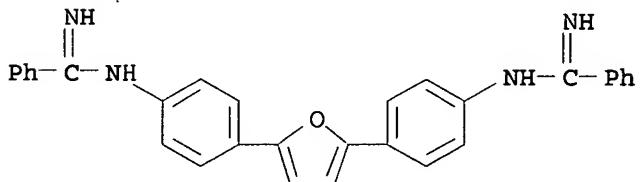
RN 347190-99-2 HCPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylidi-4,1-phenylene)bis- (9CI)
 (CA INDEX NAME)



RN 347191-03-1 HCPLUS

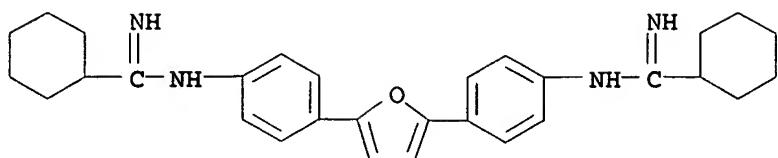
CN Benzenecarboximidamide, N,N'-(2,5-furandiylidi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

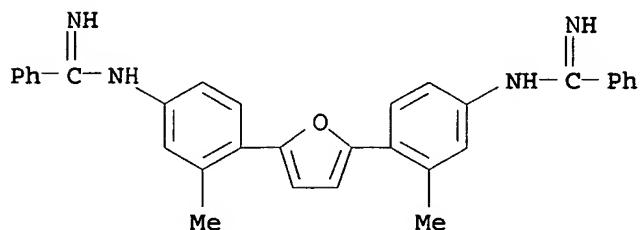
RN 347191-04-2 HCPLUS

CN Cyclohexanecarboximidamide, N,N'-(2,5-furandiylidi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



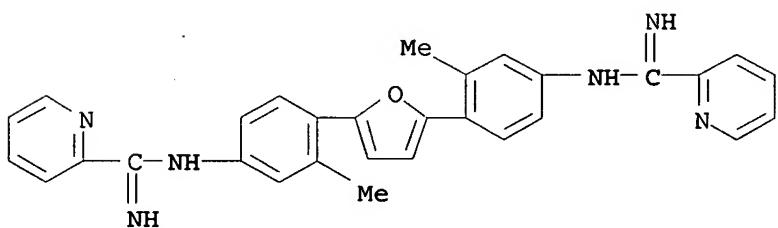
RN 347191-07-5 HCPLUS

CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



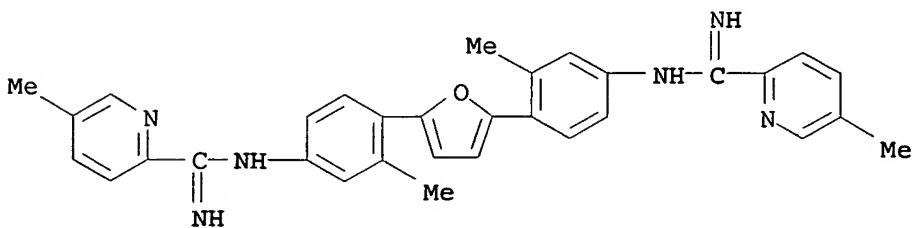
RN 347191-09-7 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



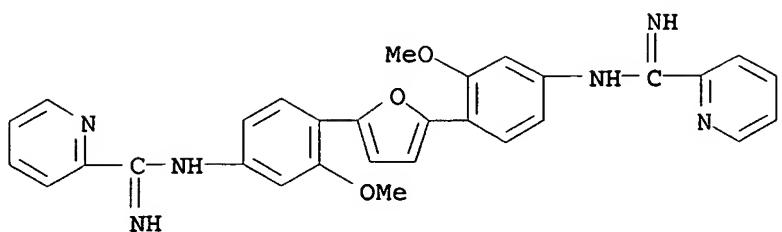
RN 347191-14-4 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl-] (9CI) (CA INDEX NAME)



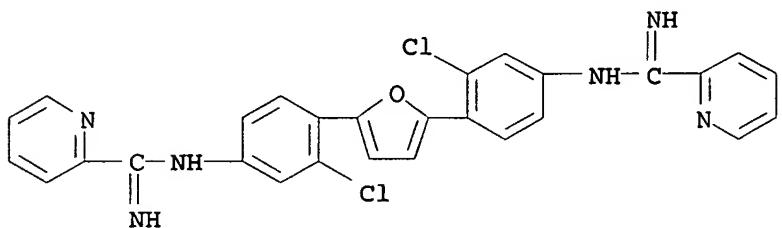
RN 347191-16-6 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



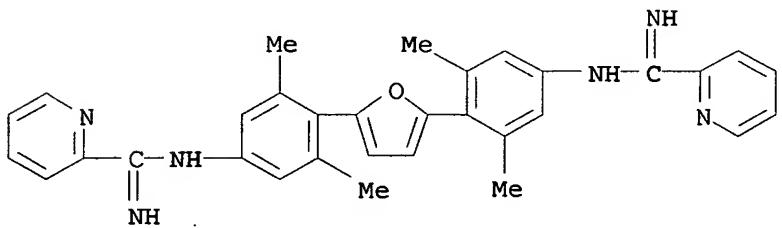
RN 347191-18-8 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(3-chloro-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



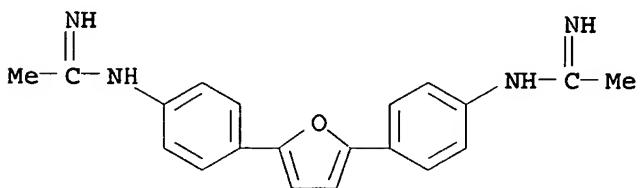
RN 347191-20-2 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(3,5-dimethyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



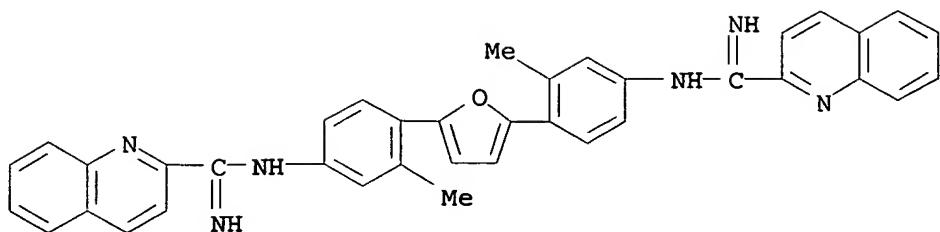
RN 423165-06-4 HCAPLUS

CN Ethanimidamide, N,N'-(2,5-furandiylidi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



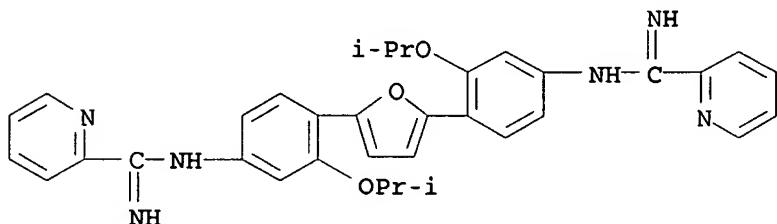
RN 423165-09-7 HCAPLUS

CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



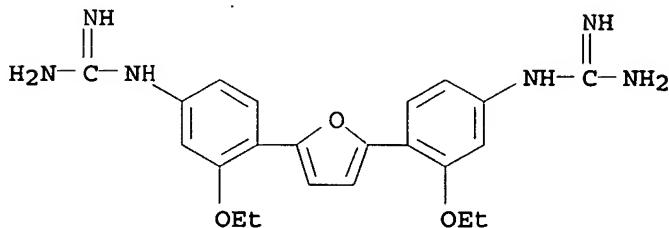
RN 423165-22-4 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis- (9CI) (CA INDEX NAME)



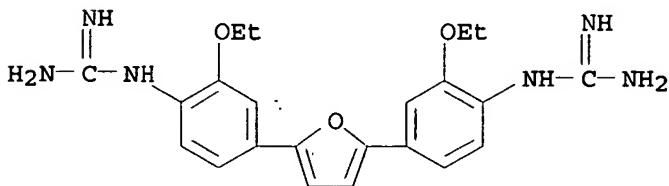
RN 423165-25-7 HCPLUS

CN Guanidine, N,N'''-[2,5-furandiylbis(3-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



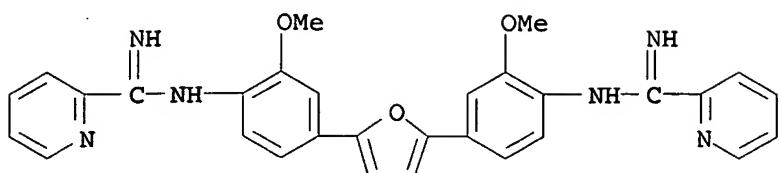
RN 423165-28-0 HCPLUS

CN Guanidine, N,N''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



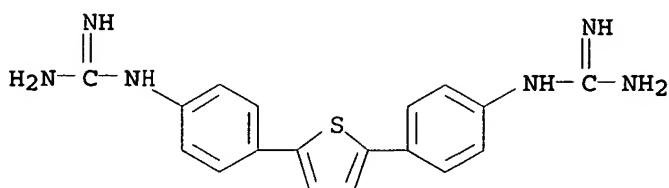
RN 423165-29-1 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



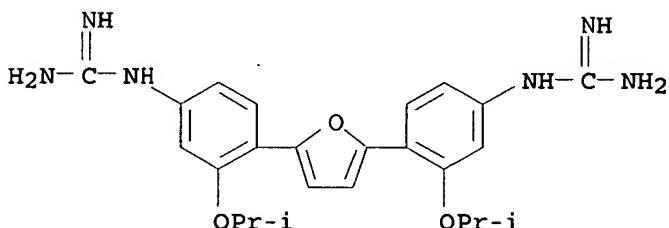
RN 423165-31-5 HCAPLUS

CN Guanidine, N,N'-(2,5-thiophenediyldi-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



RN 423165-62-2 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene])bis- (9CI) (CA INDEX NAME)

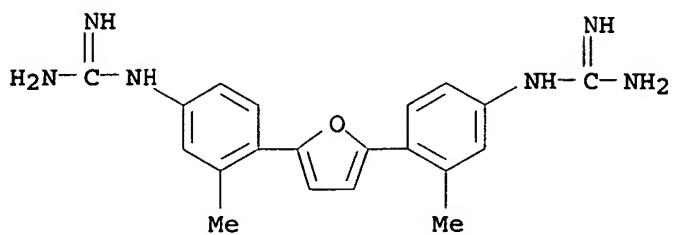


IT 423165-10-0 423165-11-1 423165-12-2
 423165-16-6 423165-17-7 423165-18-8
 423165-19-9 423165-20-2 423165-21-3
 423165-23-5 423165-24-6 423165-26-8
 423165-27-9 423165-30-4 423165-75-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (reversed amidines for treating, preventing, or inhibiting leishmaniasis)

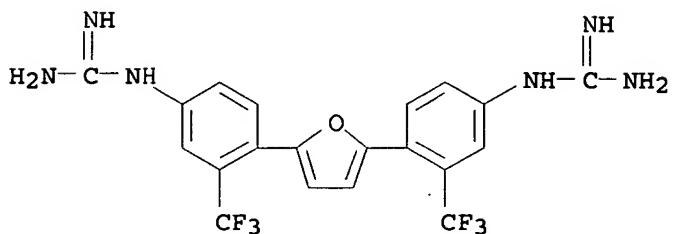
RN 423165-10-0 HCAPLUS

CN Guanidine, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



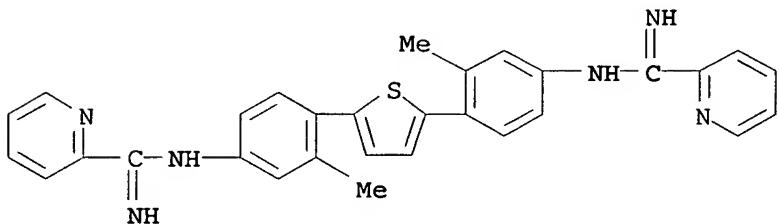
RN 423165-11-1 HCPLUS

CN Guanidine, N,N'-(2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene])bis- (9CI) (CA INDEX NAME)



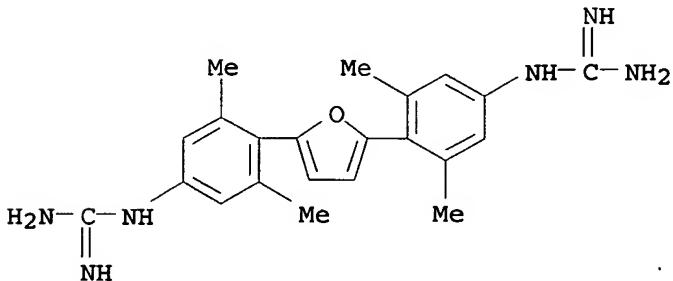
RN 423165-12-2 HCPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-thiophenediylylbis(3-methyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



RN 423165-16-6 HCPLUS

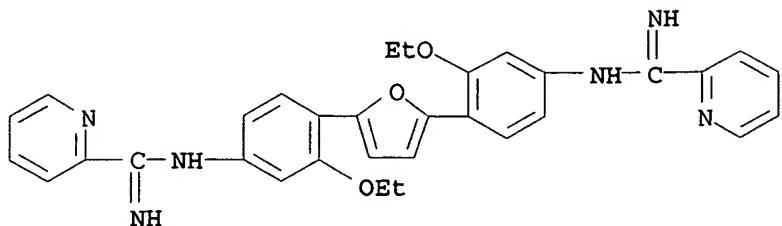
CN Guanidine, N,N'-(2,5-furandiylbis(3,5-dimethyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



RN 423165-17-7 HCPLUS

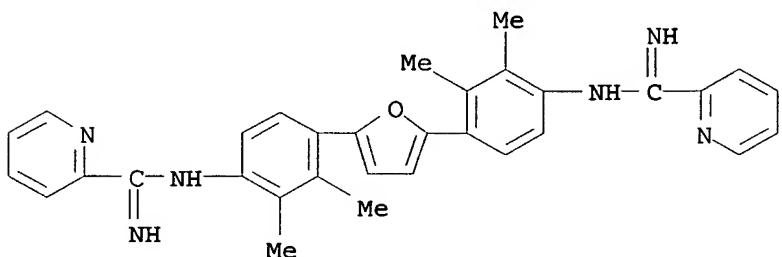
CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(3-ethoxy-4,1-

phenylene)]bis- (9CI) (CA INDEX NAME)



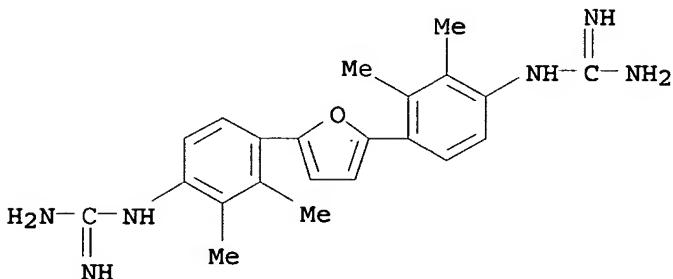
RN 423165-18-8 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2,3-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



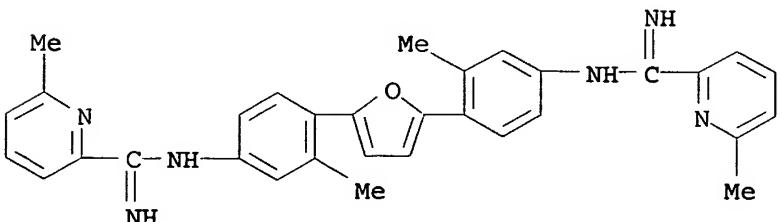
RN 423165-19-9 HCPLUS

CN Guanidine, N,N''-[2,5-furandiylbis(2,3-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



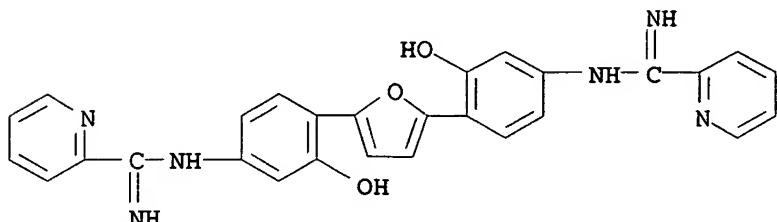
RN 423165-20-2 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[6-methyl- (9CI) (CA INDEX NAME)



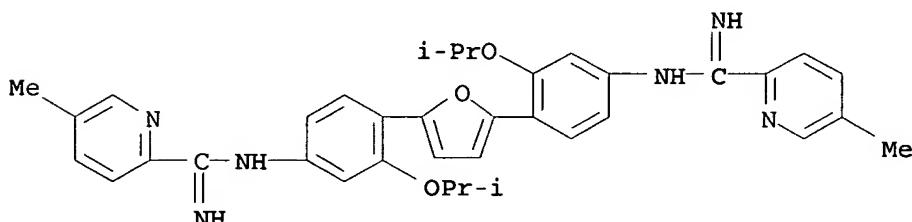
RN 423165-21-3 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-[2,5-furandiylbis(3-hydroxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



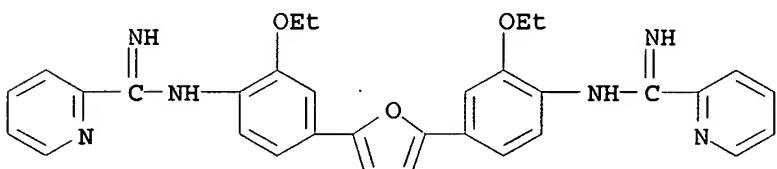
RN 423165-23-5 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis[5-methyl- (9CI) (CA INDEX NAME)



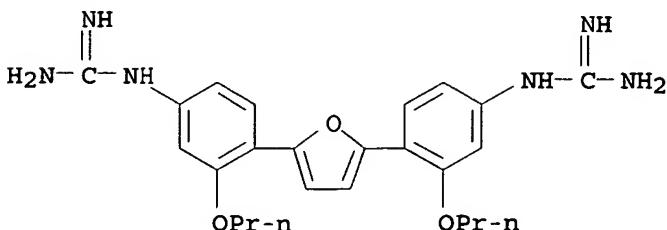
RN 423165-24-6 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



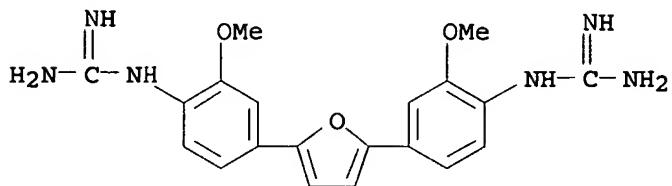
RN 423165-26-8 HCAPLUS

CN Guanidine, N,N'',[2,5-furandiylbis(3-propoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



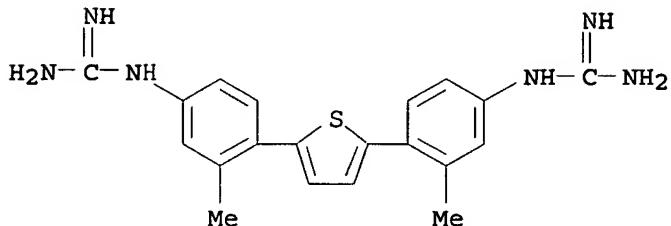
RN 423165-27-9 HCAPLUS

CN Guanidine, N,N'--[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis- (9CI)
 (CA INDEX NAME)



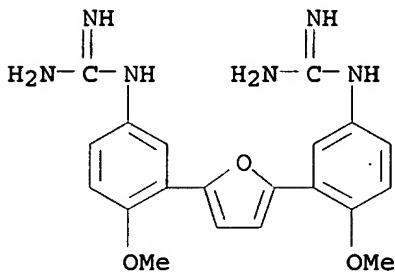
RN 423165-30-4 HCAPLUS

CN Guanidine, N,N'--[2,5-thiophenediylbis(3-methyl-4,1-phenylene)]bis- (9CI)
 (CA INDEX NAME)



RN 423165-75-7 HCAPLUS

CN Guanidine, N,N'--[2,5-furandiylbis(4-methoxy-3,1-phenylene)]bis- (9CI)
 (CA INDEX NAME)

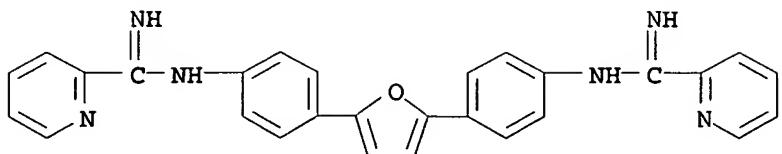


IT 347191-00-8P 347191-05-3P 347191-08-6P
 347191-11-1P 347191-15-5P 347191-17-7P
 347191-19-9P 347191-21-3P 423165-54-2P
 423165-55-3P 423165-56-4P 423165-57-5P
 423165-58-6P 423165-59-7P 423165-61-1P
 423165-64-4P 423165-66-6P 423165-69-9P
 423165-71-3P 423165-74-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (reversed amidines for treating, preventing, or inhibiting
 leishmaniasis)

RN 347191-00-8 HCAPLUS

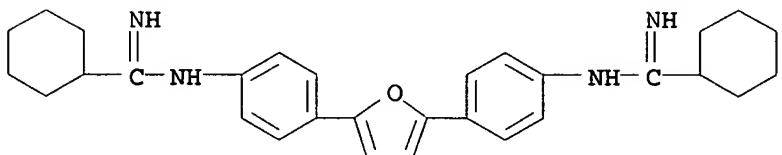
CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiyl-4,1-phenylene)bis-,
 hydrochloride (2:7) (9CI) (CA INDEX NAME)



● 7/2 HCl

RN 347191-05-3 HCPLUS

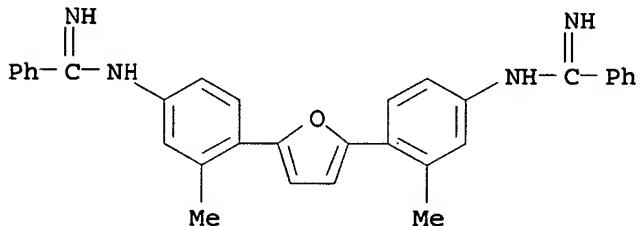
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiyl-di-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

RN 347191-08-6 HCPLUS

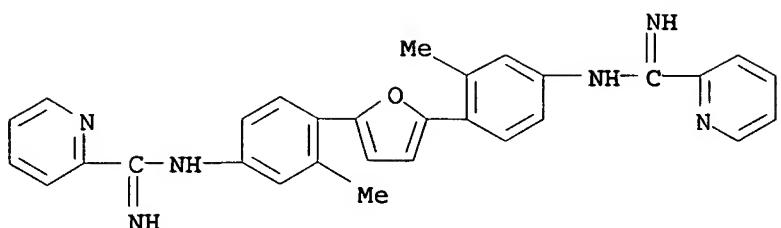
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

RN 347191-11-1 HCPLUS

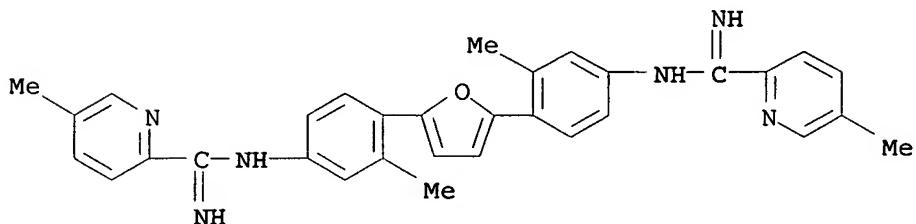
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



● 7/2 HCl

RN 347191-15-5 HCAPLUS

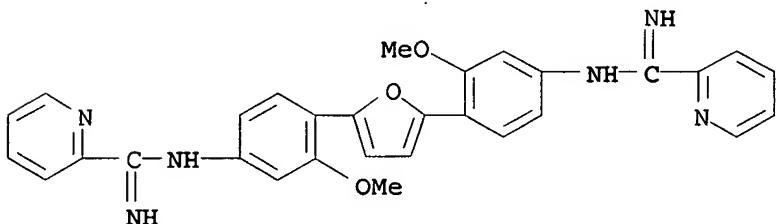
CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis[5-methyl-, hydrochloride (4:13) (9CI) (CA INDEX NAME)



● 13/4 HCl

RN 347191-17-7 HCAPLUS

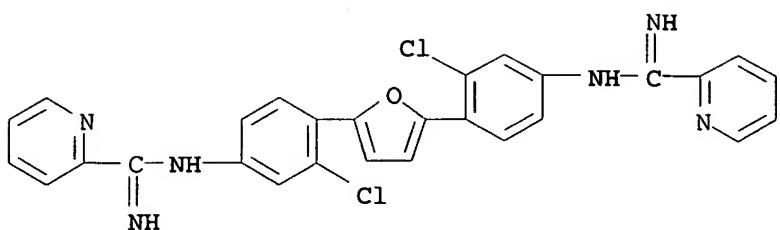
CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylibis(3-methoxy-4,1-phenylene))bis-, dihydrochloride (9CI) (CA INDEX NAME)



●₂ HCl

RN 347191-19-9 HCAPLUS

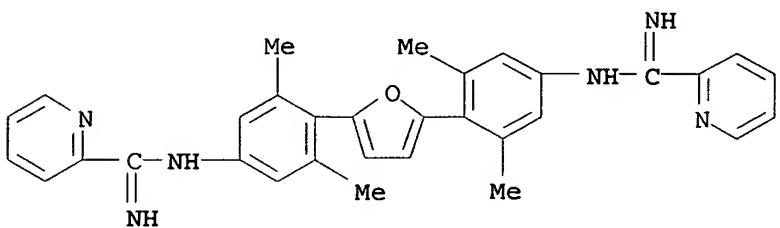
CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(3-chloro-4,1-phenylene))bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347191-21-3 HCPLUS

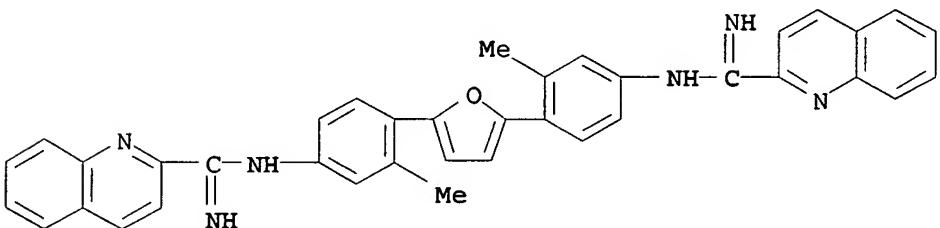
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, hydrochloride (4:15) (9CI) (CA INDEX NAME)



●15/4 HCl

RN 423165-54-2 HCPLUS

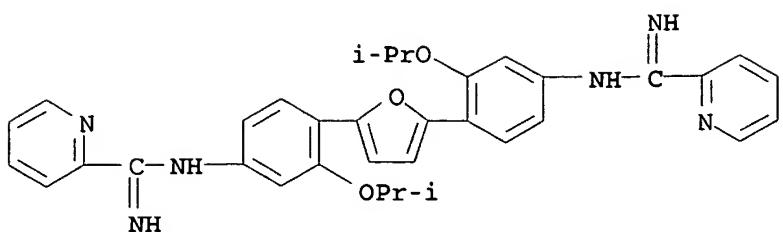
CN 2-Quinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-55-3 HCPLUS

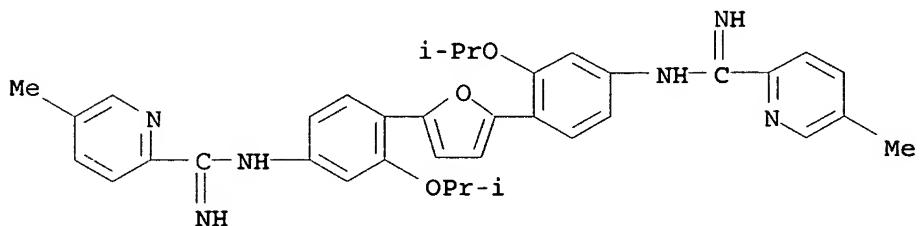
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-56-4 HCAPLUS

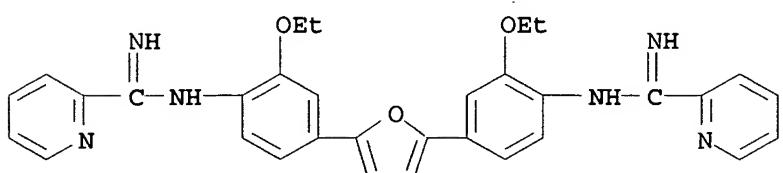
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis[5-methyl-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-57-5 HCAPLUS

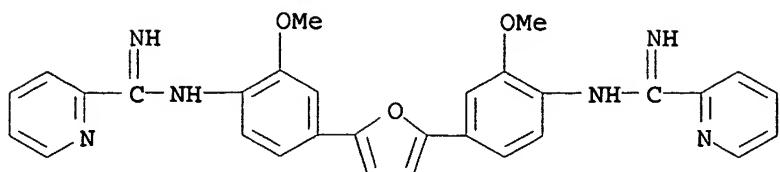
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-58-6 HCAPLUS

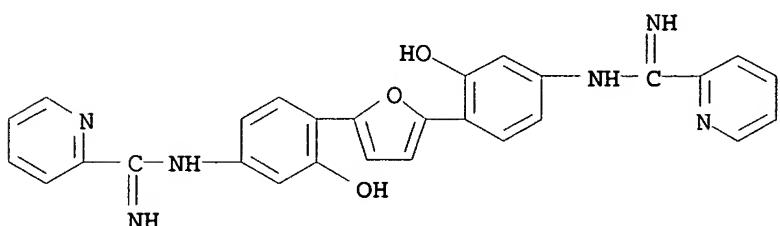
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-59-7 HCPLUS

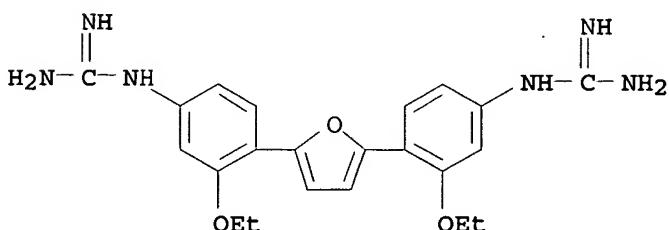
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-hydroxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-61-1 HCPLUS

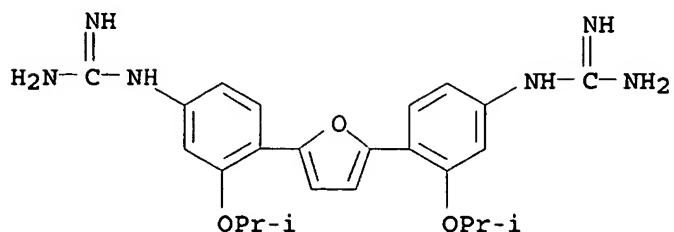
CN Guanidine, N,N''-[2,5-furandiylbis(3-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-64-4 HCPLUS

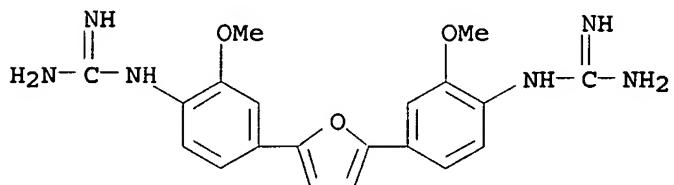
CN Guanidine, N,N''-[2,5-furandiylbis[3-(1-methylethoxy)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-66-6 HCPLUS

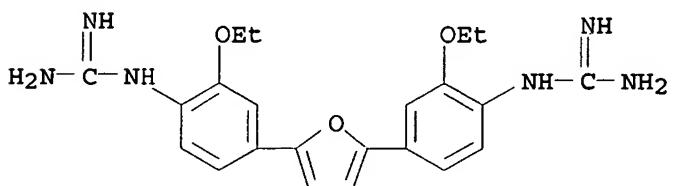
CN Guanidine, N,N''-[2,5-furandiylbis(2-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-69-9 HCPLUS

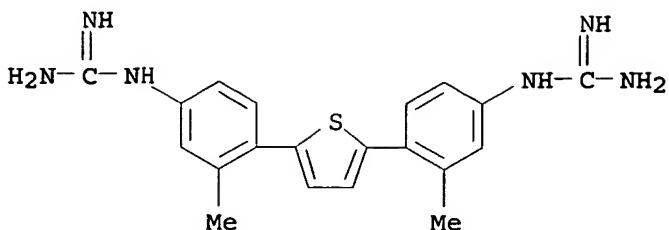
CN Guanidine, N,N''-[2,5-furandiylbis(2-ethoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 423165-71-3 HCPLUS

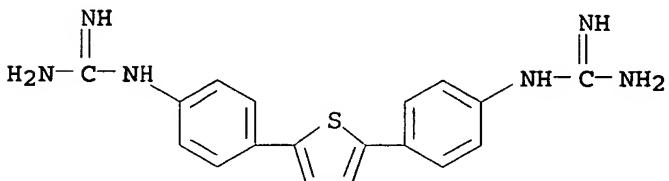
CN Guanidine, N,N''-[2,5-thiophenediylylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



•₂ HCl

RN 423165-74-6 HCAPLUS

CN Guanidine, N,N'-(2,5-thiophenediyldi-4,1-phenylene)bis-, dihydrochloride
(9CI) (CA INDEX NAME)



2 HCl

L12 ANSWER 21 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:301099 HCAPLUS

DN 135:76736

TI Diguanidino and "Reversed" Diamidino 2,5-Diarylfurans as Antimicrobial Agents

AU Stephens, Chad E.; Tanius, Farial; Kim, Susan; Wilson, W. David; Schell, Wiley A.; Perfect, John R.; Franzblau, Scott G.; Boykin, David W.

CS Department of Chemistry, Georgia State University, Atlanta, GA.

30303-3083. USA

SO Journal of Medicinal Chemistry (2001), 44(11), 1741-1748

CODEN: JMCMAR ISSN: 0022-

PB American

**AMERICAN
JOURNAL**

Journal
English

OS English CASREACT 135:76736

68
GT

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dicationic 2,5-bis(4-guanidinophenyl)furans, e.g. I, 2,5-bis[4-(arylimino)aminophenyl]furans, e.g. II, and 2,5-bis[4-(alkylimino)aminophenyl]furans, e.g. III have been synthesized starting from 2,5-bis[tri-*n*-butylstannyl]furan. Thermal melting studies with poly-

dA-dT and the duplex oligomer d(CGCGAATTCGCG)2 demonstrated high DNA binding affinities for a number of the compds. The binding affinities are highly dependent on structure and are significantly affected by substituents both on the Ph rings of the 2,5-diphenylfuran nucleus and on the cationic centers. Of the 17 novel dicationic compds. synthesized, six exhibited MICs of 2 µg/mL or less vs. Mycobacterium tuberculosis. Of the compds. screened against Candida albicans, three gave MICs of 2 µg/mL or less (I, II and IV) and two (I, II) were fungicidal, unlike a standard antifungal drug fluconazole, which was fungistatic. In addition, one

of

the tested compds. II exhibited a MIC of <1 µg/mL against Aspergillus fumigatus, while also being a fungicidal against this organism. Finally, when evaluated against an expanded fungal panel, compound IV showed good activity against Cryptococcus neoformans and Rhizopus arrhizus.

CC

27-6 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1

ST

fungicidal antitubercostatic amidinophenylfuran; substituent effect DNA binding affinity arylfuran cationic; arylfuran amidino guanidino antimicrobial agent prep; furan guanidinophenyl prep; amidinophenyl furan imino prep

IT

Imidic acids

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(esters, thio; preparation of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of

bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT

Structure-activity relationship

(fungicidal; preparation of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of

bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT

Thioamides

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT

Fungicides

Tuberculostatics

(preparation of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT

347191-26-8P

RL: BYP (Byproduct); PREP (Preparation)

(formation of monoamidine byproduct in preparation of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT

180002-24-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(formation of monoamidine byproduct in preparation of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT

939-26-4, 2-(Bromomethyl)naphthalene 2227-79-4, Thiobenzamide

7390-42-3, Cyclohexanecarbothioamide 96898-30-5, Quinoline-2-carbothioamide

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT

347191-22-4P 347191-23-5P 347191-24-6P 347191-25-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of (naphthylmethyl)thioimidates from (bromomethyl)naphthalene and thioamides in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT 347190-93-6P 347190-94-7P 347190-95-8P
 347190-96-9P 347190-97-0P 347190-98-1P
 347191-00-8P 347191-03-1P 347191-05-3P
 347191-06-4P 347191-08-6P 347191-11-1P
 347191-13-3P 347191-15-5P 347191-17-7P
 347191-19-9P 347191-21-3P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT 367-67-9 586-78-7, 4-Bromo-1-nitrobenzene 7149-70-4,
 1-Bromo-2-methyl-4-nitrobenzene 29682-39-1, 1-Bromo-2-chloro-4-nitrobenzene 53906-84-6, 4-Bromo-3,5-dimethylnitrobenzene 77337-82-7,
 1-Bromo-2-methoxy-4-nitrobenzene 107819-90-9 193361-76-1,
 2,5-Bis(tributylstannyl)furan
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

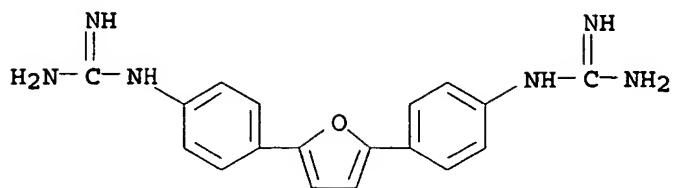
IT 53715-17-6P 56297-30-4P 251577-90-9P 347190-78-7P 347190-79-8P
 347190-80-1P 347190-81-2P 347190-82-3P 347190-83-4P 347190-84-5P
 347190-85-6P 347190-86-7P 347190-87-8P 347190-88-9P
 347190-89-0P 347190-90-3P 347190-91-4P
 347190-92-5P 347190-99-2P 347191-01-9P
 347191-02-0P 347191-04-2P 347191-07-5P
 347191-09-7P 347191-10-0P 347191-12-2P
 347191-14-4P 347191-16-6P 347191-18-8P
 347191-20-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

IT 100-70-9, 2-Cyanopyridine 1620-77-5, 2-Cyano-5-methylpyridine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of pyridinethiocarboxamide from (cyano)pyridine and thioacetamide in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT 5346-38-3P, 2-Pyridinecarbothioamide 334017-98-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of pyridinethiocarboxamide from (cyano)pyridine and thioacetamide in synthesis of bis(amidinoaryl)furans as antifungicidal and antituberculosis agents)

IT 347190-93-6P 347190-94-7P 347190-95-8P
 347190-96-9P 347190-97-0P 347190-98-1P
 347191-00-8P 347191-03-1P 347191-05-3P
 347191-06-4P 347191-08-6P 347191-11-1P
 347191-13-3P 347191-15-5P 347191-17-7P
 347191-19-9P 347191-21-3P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of bis(guanidinoaryl)- and bis(amidinoaryl)furans as antifungal and antituberculosis agents)

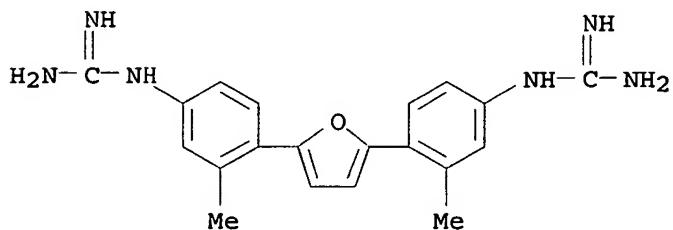
RN 347190-93-6 HCAPLUS
 CN Guanidine, N,N''-(2,5-furandiylidi-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-94-7 HCPLUS

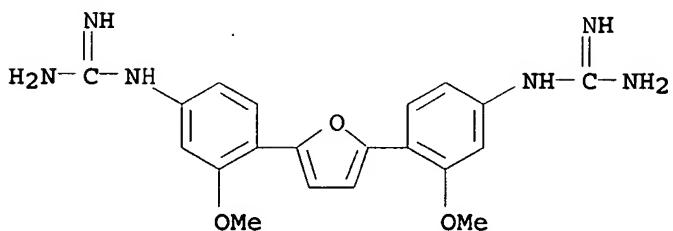
CN Guanidine, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-95-8 HCPLUS

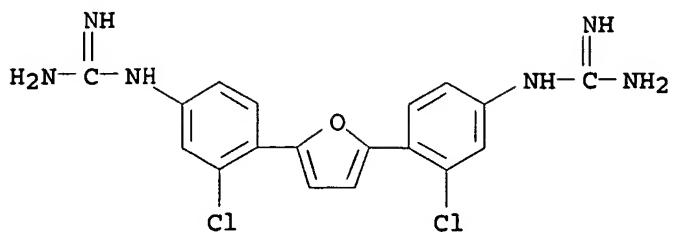
CN Guanidine, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-96-9 HCPLUS

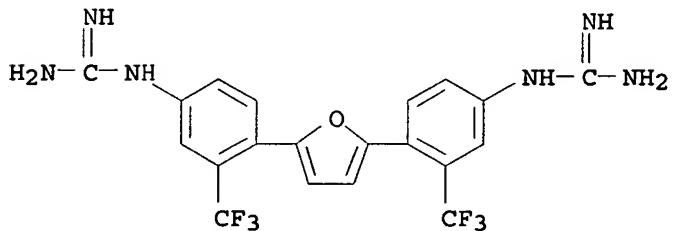
CN Guanidine, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-97-0 HCPLUS

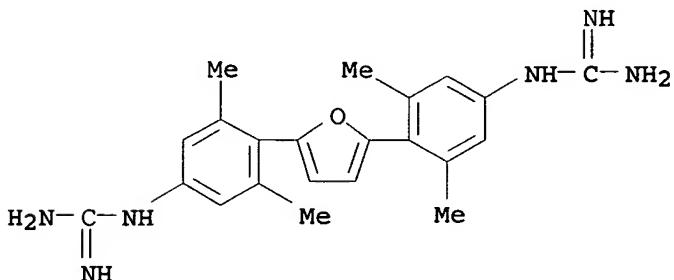
CN Guanidine, N,N' ''-[2,5-furandiylbis[3-(trifluoromethyl)-4,1-phenylene]]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347190-98-1 HCPLUS

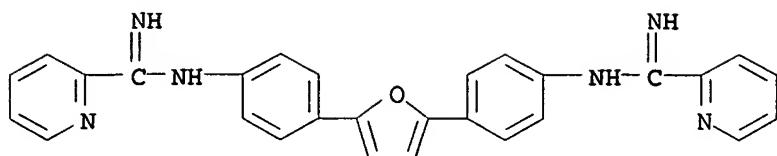
CN Guanidine, N,N' ''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347191-00-8 HCPLUS

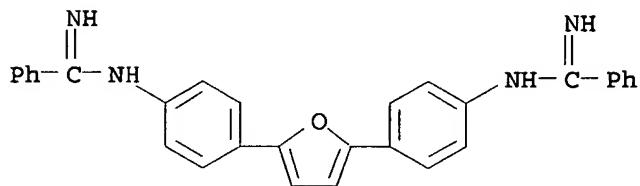
CN 2-Pyridinecarboximidamide, N,N' -(2,5-furandiyl-4,1-phenylene)bis-, hydrochloride (2:7) (CA INDEX NAME)



● 7/2 HCl

RN 347191-03-1 HCPLUS

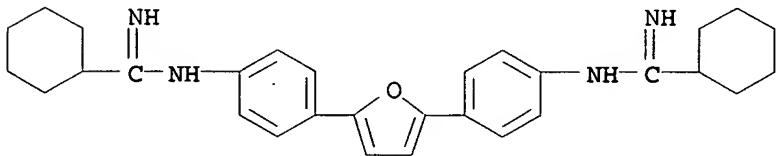
CN Benzenecarboximidamide, N,N''-(2,5-furandiylidene-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

RN 347191-05-3 HCPLUS

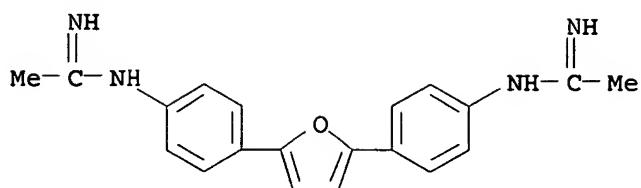
CN Cyclohexanecarboximidamide, N,N''-(2,5-furandiylidene-4,1-phenylene)bis-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

RN 347191-06-4 HCPLUS

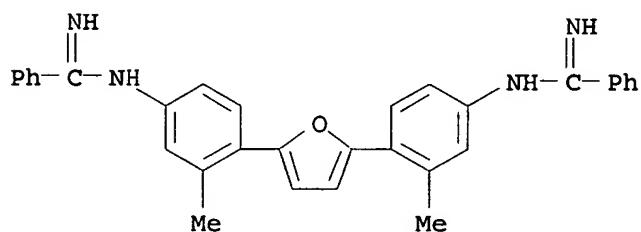
CN Ethanimidamide, N,N''-(2,5-furandiylidene-4,1-phenylene)bis-, dihydropotassium salt (9CI) (CA INDEX NAME)



●2 HBr

RN 347191-08-6 HCPLUS

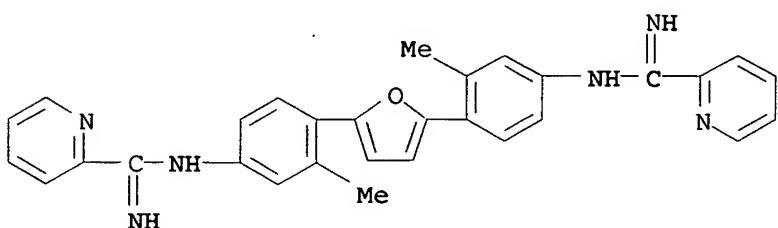
CN Benzenecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347191-11-1 HCPLUS

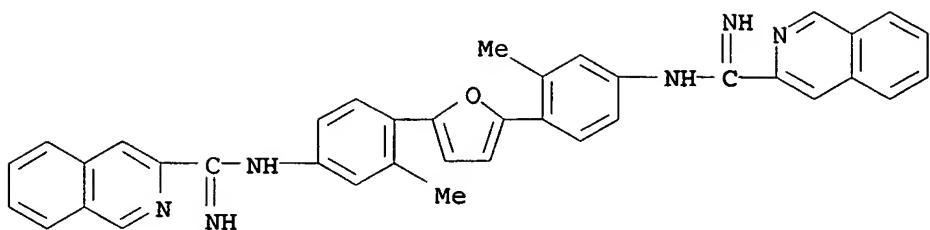
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, hydrochloride (2:7) (9CI) (CA INDEX NAME)



●7/2 HCl

RN 347191-13-3 HCPLUS

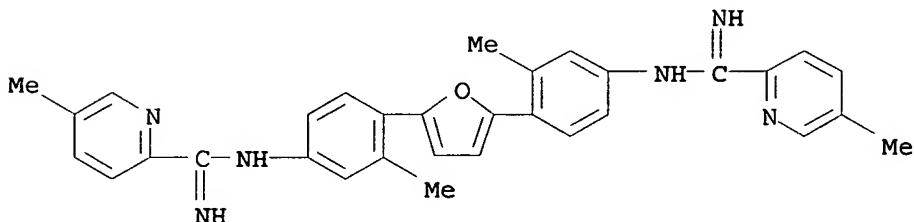
CN 3-Isoquinolinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347191-15-5 HCPLUS

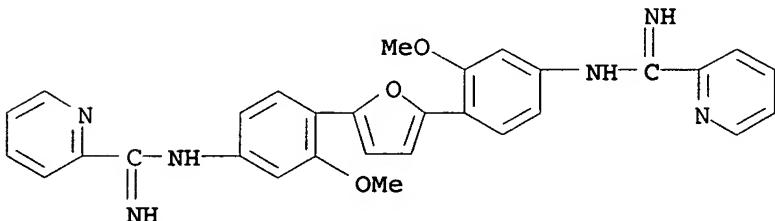
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl-, hydrochloride (4:13) (9CI) (CA INDEX NAME)



●13/4 HCl

RN 347191-17-7 HCPLUS

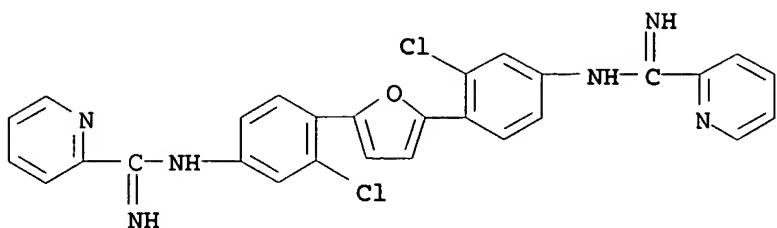
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347191-19-9 HCPLUS

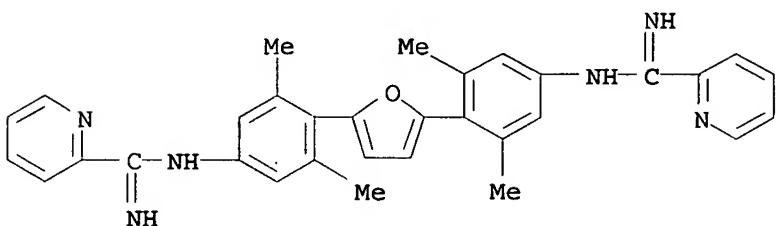
CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis-, dihydrochloride (9CI) (CA INDEX NAME)



●2 HCl

RN 347191-21-3 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis-, hydrochloride (4:15) (9CI) (CA INDEX NAME)



●15/4 HCl

IT 347190-87-8P 347190-88-9P 347190-89-0P

347190-90-3P 347190-91-4P 347190-92-5P

347190-99-2P 347191-02-0P 347191-04-2P

347191-07-5P 347191-09-7P 347191-12-2P

347191-14-4P 347191-16-6P 347191-18-8P

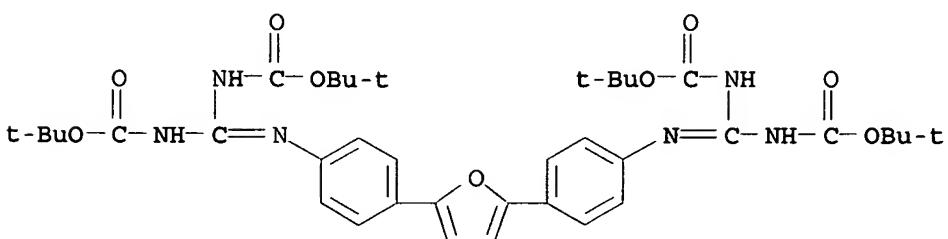
347191-20-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)

(preparation of bis(guanidinoaryl)- and bis(amidinoaryl)furan as antifungal
and antituberculosis agents)

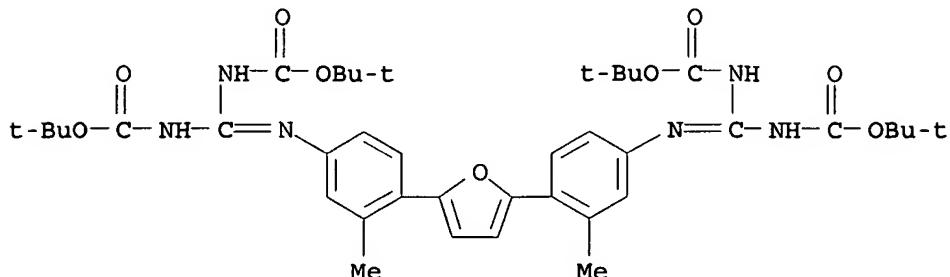
RN 347190-87-8 HCPLUS

CN Carbamic acid, [2,5-furandiylbis(4,1-phenylenenitrilomethanetetrayl)]tetra
kis-, tetrakis(1,1-dimethylethyl) ester (9CI) (CA INDEX NAME)



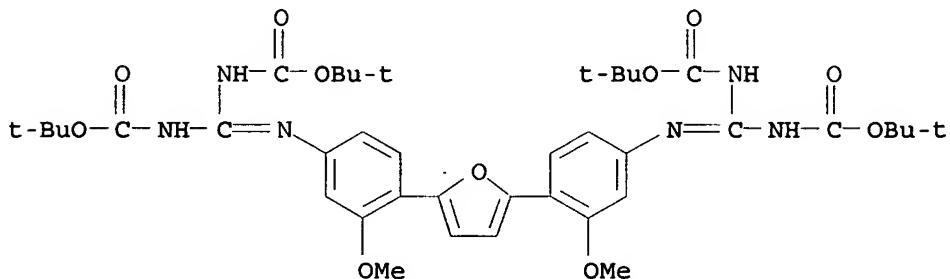
RN 347190-88-9 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[(3-methyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



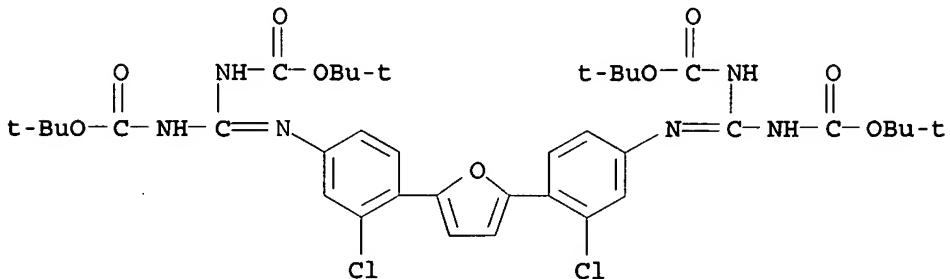
RN 347190-89-0 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[(3-methoxy-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



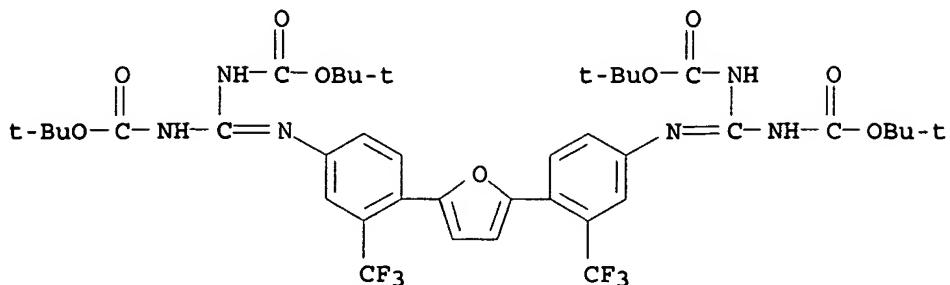
RN 347190-90-3 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[(3-chloro-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



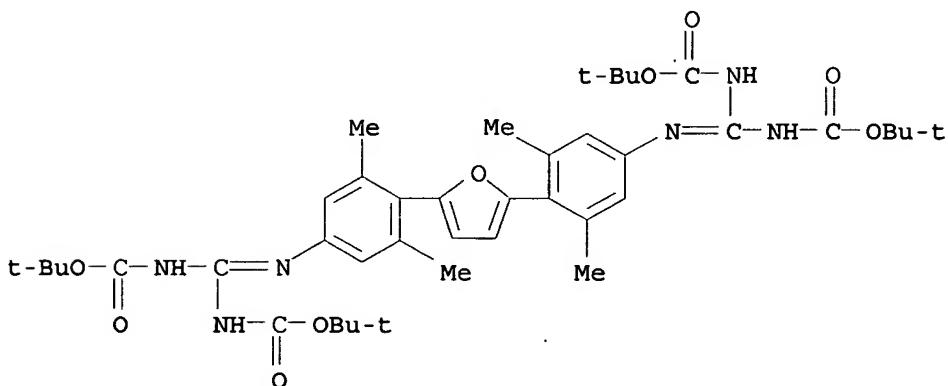
RN 347190-91-4 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[[3-(trifluoromethyl)-4,1-phenylene]nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



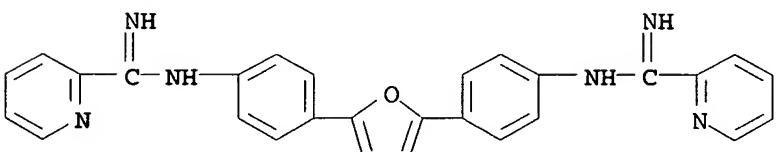
RN 347190-92-5 HCAPLUS

CN Carbamic acid, [2,5-furandiylbis[(3,5-dimethyl-4,1-phenylene)nitrilomethanetetrayl]]tetrakis-, tetrakis(1,1-dimethylethyl)ester (9CI) (CA INDEX NAME)



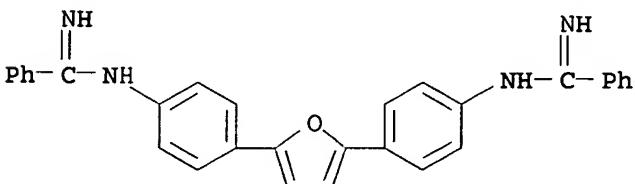
RN 347190-99-2 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiyl-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



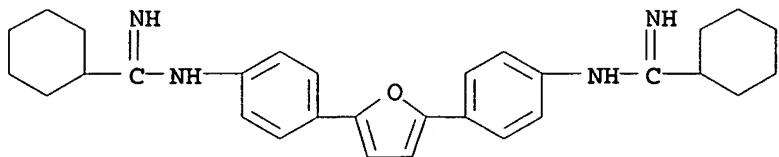
RN 347191-02-0 HCAPLUS

CN Benzenecarboximidamide, N,N'-(2,5-furandiyl-4,1-phenylene)bis- (9CI) (CA INDEX NAME)



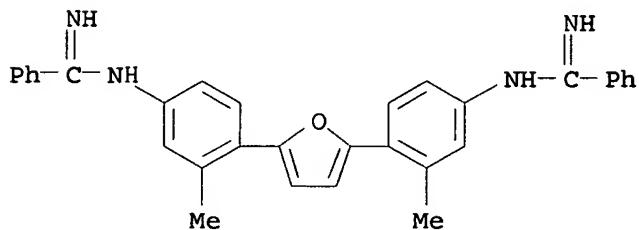
RN 347191-04-2 HCAPLUS

CN Cyclohexanecarboximidamide, N,N'-(2,5-furandiyl-di-4,1-phenylene)bis-(9CI) (CA INDEX NAME)



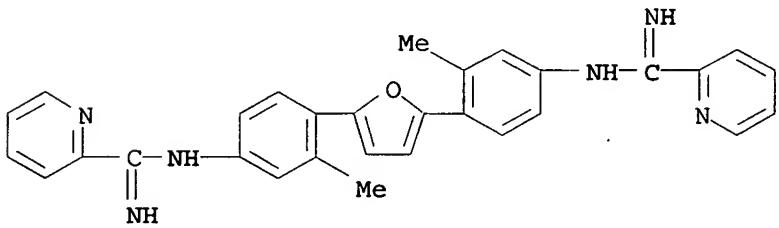
RN 347191-07-5 HCAPLUS

CN Benzenecarboximidamide, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



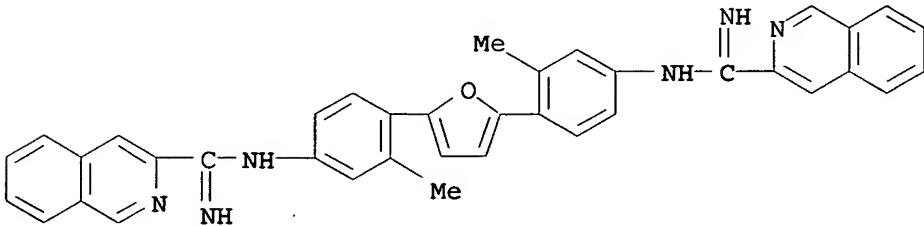
RN 347191-09-7 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



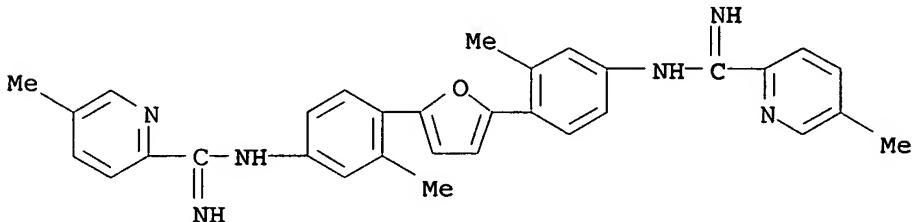
RN 347191-12-2 HCAPLUS

CN 3-Isoquinolinecarboximidamide, N,N'-(2,5-furandiylbis(3-methyl-4,1-phenylene))bis- (9CI) (CA INDEX NAME)



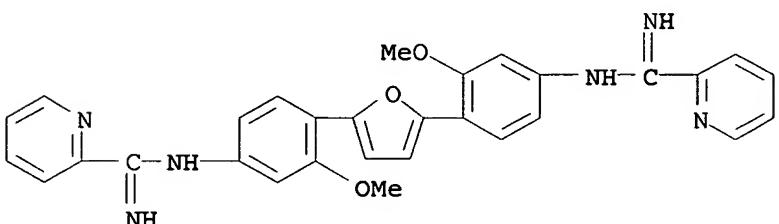
RN 347191-14-4 HCAPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methyl-4,1-phenylene)]bis[5-methyl- (9CI) (CA INDEX NAME)



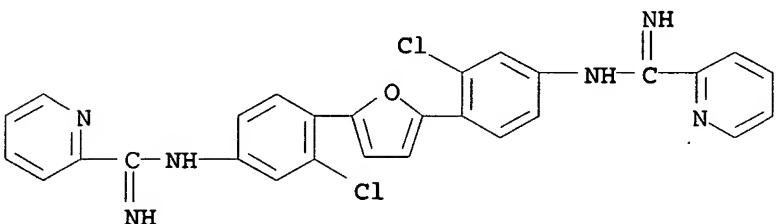
RN 347191-16-6 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-methoxy-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



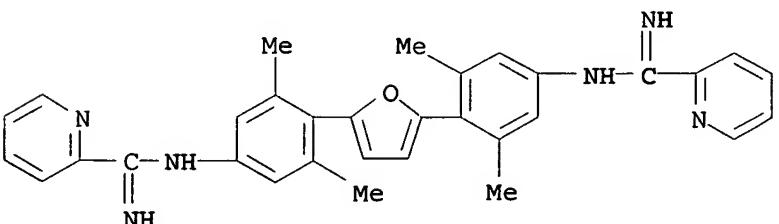
RN 347191-18-8 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3-chloro-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RN 347191-20-2 HCPLUS

CN 2-Pyridinecarboximidamide, N,N''-[2,5-furandiylbis(3,5-dimethyl-4,1-phenylene)]bis- (9CI) (CA INDEX NAME)



RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD

SACKY 10/791425 07/27/2006 Page 128

ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

KATHLEEN FULLER EIC1700 REMSEN 4B28 571/272-2505